



# RADIAL ANALYSIS BOND LOG

**Baker Atlas**

File No: CH074618	Company WPIX ENERGY	Well BOSELY SG 702-23-HN1
API No: 05045219310000	Field GRAND VALLEY	State COLORADO
	County GARFIELD	

26 75 96W SG 14-23 AZTEC 1000	Location SHL: 769' FSL & 216' FWL SEC:23 BHL: 584' FSL & 710' FWL SEC:25 SEC 26 TWP 75 RGE 96W	Other Services N/A
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Permanent Datum Log Measured From Drill Measured From	6.L. _____ Elevation 5071 ft K.B. 27 ft Above P. D. KELLY BUSHING	Elevations KB 5098 ft DF _____ GL 5071 ft
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Date	07/JUL/15
Run	ONE
Service Order	B24A38
Depth Driller	14370 ft
Depth Logger	N/A
Bottom Logged Interval	8980 ft
Top Logged Interval	27 ft
Time Started	8:00
Time Finished	13:00
Operator Rig Time	5 HRS
Type of Fluid in Hole	WATER
Fluid Density	N/A
Salinity	N/A
Fluid Level	80 ft
Logged Cement Top	N/A
Wellhead Pressure	0 psi
Maximum Hole Deviation	N/A
Nominal Logging Speed	45 fpm
Maximum Recorded Temperature	258 degF
Reference Log	BAKER HUGHES SBT LOG
Reference Log Date	07/JUN/15
Equipment No.	4271
Recorded By	M. KINSEL
Witnessed By	MR. KENT HEIL

- FOLD HERE

In making interpretations of logs, our employees will give the customer the benefit of their best judgement. But since all interpretations are opinions based on inferences from electrical or other measurements, we cannot, and we do not guarantee the accuracy or correctness of any interpretation. We shall not be liable or responsible for any loss, cost, damages, or expenses whatsoever incurred or sustained by the customer resulting from any interpretation made by any of our employees.

Borehole Record		
Bit Size	From	To
30 In	0 ft	60 ft
17.5 In	0 ft	1555 ft
12.25 In	0 ft	9267 ft
8.5 In	0 ft	14558 ft

Casing Record				
Size	Weight	Grade	From	To
20 In	N/A	N/A	0 ft	60 ft
13.375 In	N/A	N/A	0 ft	1555 ft
9.625 In	N/A	N/A	0 ft	9165 ft
5.5 In	23 lbm/ft	N/A	0 ft	14370 ft

**Remarks**

ALL DATA IN THIS LOG WAS DEPTH SHIFTED TO MATCH A BAKER HUGHES SBT LOG DATED 7 JUNE 2013 AT THE CLIENT'S REQUEST. THE AMOUNT OF LINEAR SHIFT WAS 5 FEET DOWN. DEPTH SHIFTING PROCESS CREATES THE POTENTIAL FOR COLLAR LENGTHS TO VARY FROM OTHER CASED HOLE LOGS WITHOUT A GAMMA RAY REFERENCE.

SHORT JOINT: 7953' - 7990'

BHT: 258 degF

LOG DONE WITH 0 PSI ON WELLHEAD

DROPPED DOWN AS FAR AS POSSIBLE WITH TOOL TO 8980' AND LOGGED OUT.

Equipment Data

Run	Trip	Tool	Series Number	Serial Number	Position
1	1	VDL	1426XA	10124106	CENTRALIZED
1	1	GAMMA RAY/CCL	2459XA	10417457	CENTRALIZED

***MAIN LOG PRIMARY PRESENTATION  
0 PSI***

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	320.460	usec	40.124	9000.000
RAL	Amp Gate Start Near	211.080	usec	40.124	9000.000
RAL	Amp Gate Start Radial	211.080	usec	40.124	9000.000
RAL	Amp Gate Width Far	25.000	usec	40.124	9000.000
RAL	Amp Gate Width Near	25.000	usec	40.124	9000.000
RAL	Amp Gate Width Radial	25.000	usec	40.124	9000.000
RAL	casing od	5.500	inches	40.124	9000.000
RAL	casing wt	23.000	lbm/ft	40.124	9000.000
RAL	FB Start Far	302.589	usec	40.124	9000.000
RAL	FB Start Near	186.080	usec	40.124	9000.000
RAL	FB Start Radial	186.080	usec	40.124	9000.000
RAL	FB Thresh Far	10.000	mv	40.124	9000.000
RAL	FB Thresh Near	4.000	mv	40.124	9000.000
RAL	FB Thresh Radial	4.000	mv	40.124	9000.000
RAL	Fluid Travel Time	200.000	usec/ft	40.124	8999.999

DEPTH OFFSETS

(for Acquired Curves)

SERIES	DEPTH OFFSET	ACQUIRED CURVES					
1426XA	-16.750	ACAL	ANR	AR1	AR2	AR3	AR4
		AR5	AR6	AR7	AR8	CHV	FPR2
		FPR3	FPR5	TT3	TTR1	TTR2	TTR3
		TTR4	TTR5	TTR6	TTR7	TTR8	XAMP
1426XA	-15.750	AFAR	SIG	TT5			
2459XA	-11.340	CCL					
2459XA	-9.490	GR					
2459XA	-4.090	NEU					

Created by : RAL, v4.8.008

Plotted by : PlotMgr, v5.4.504

Company : WPX ENERGY

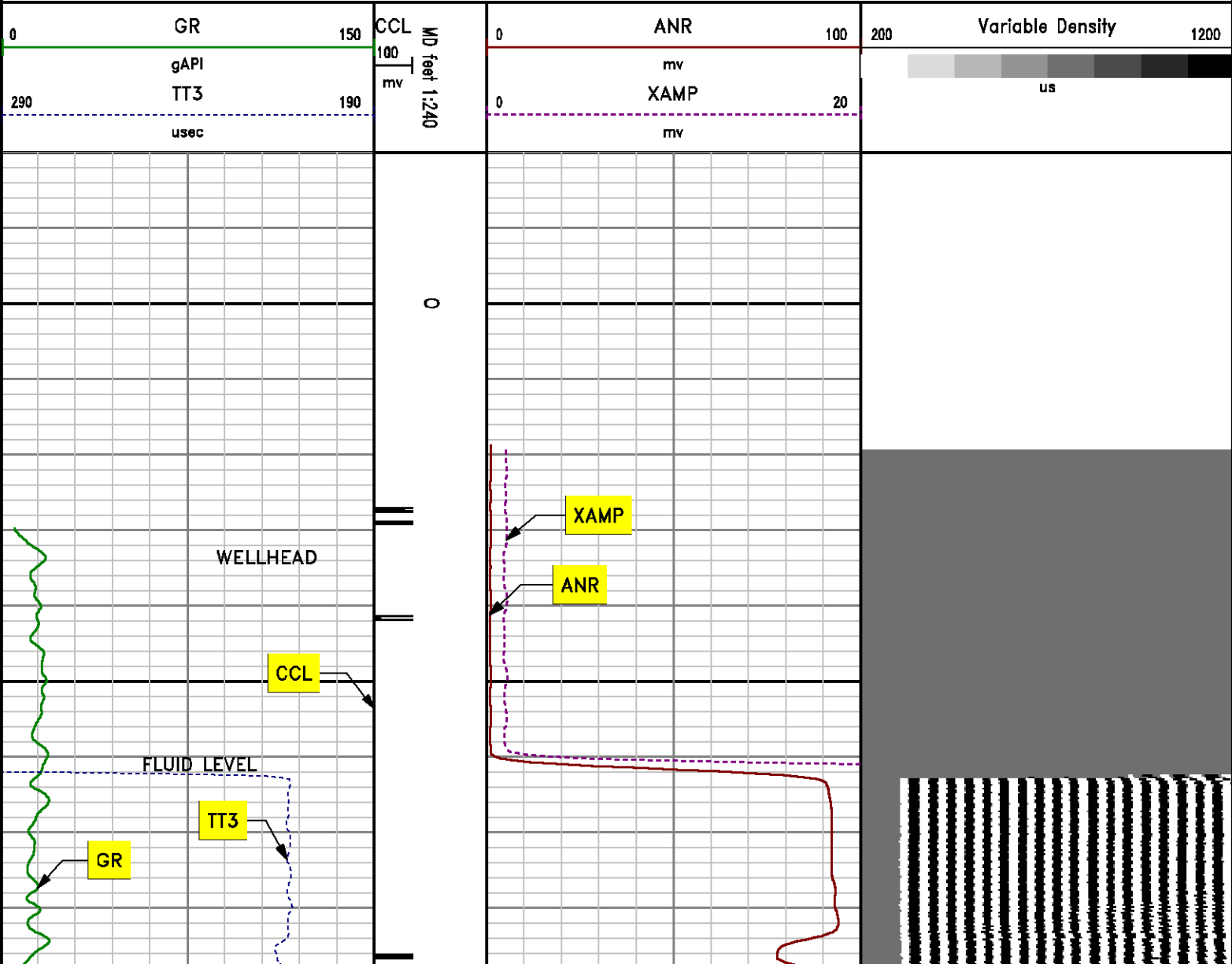
Well : BOSELY SG 702-23-HN1

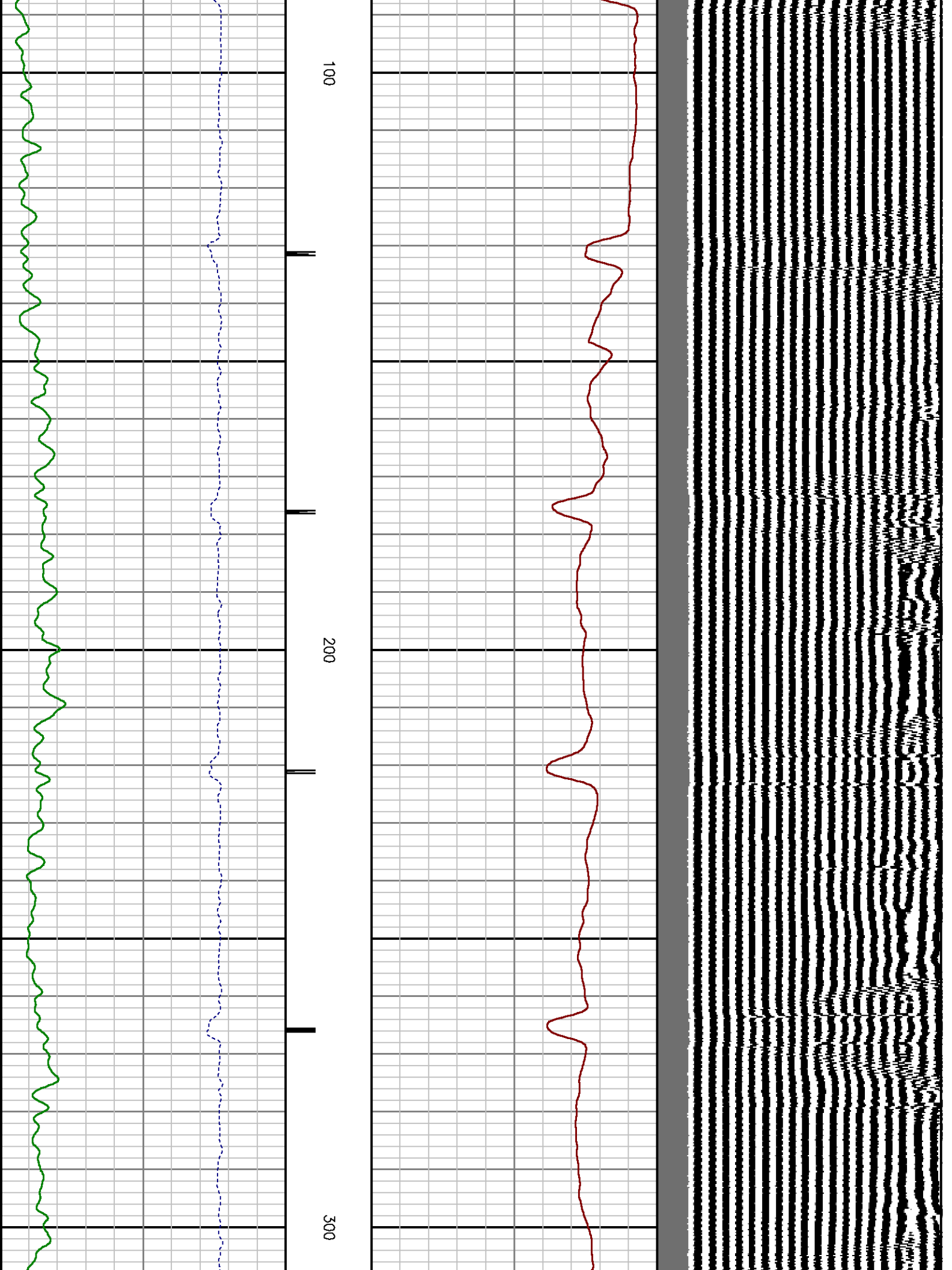
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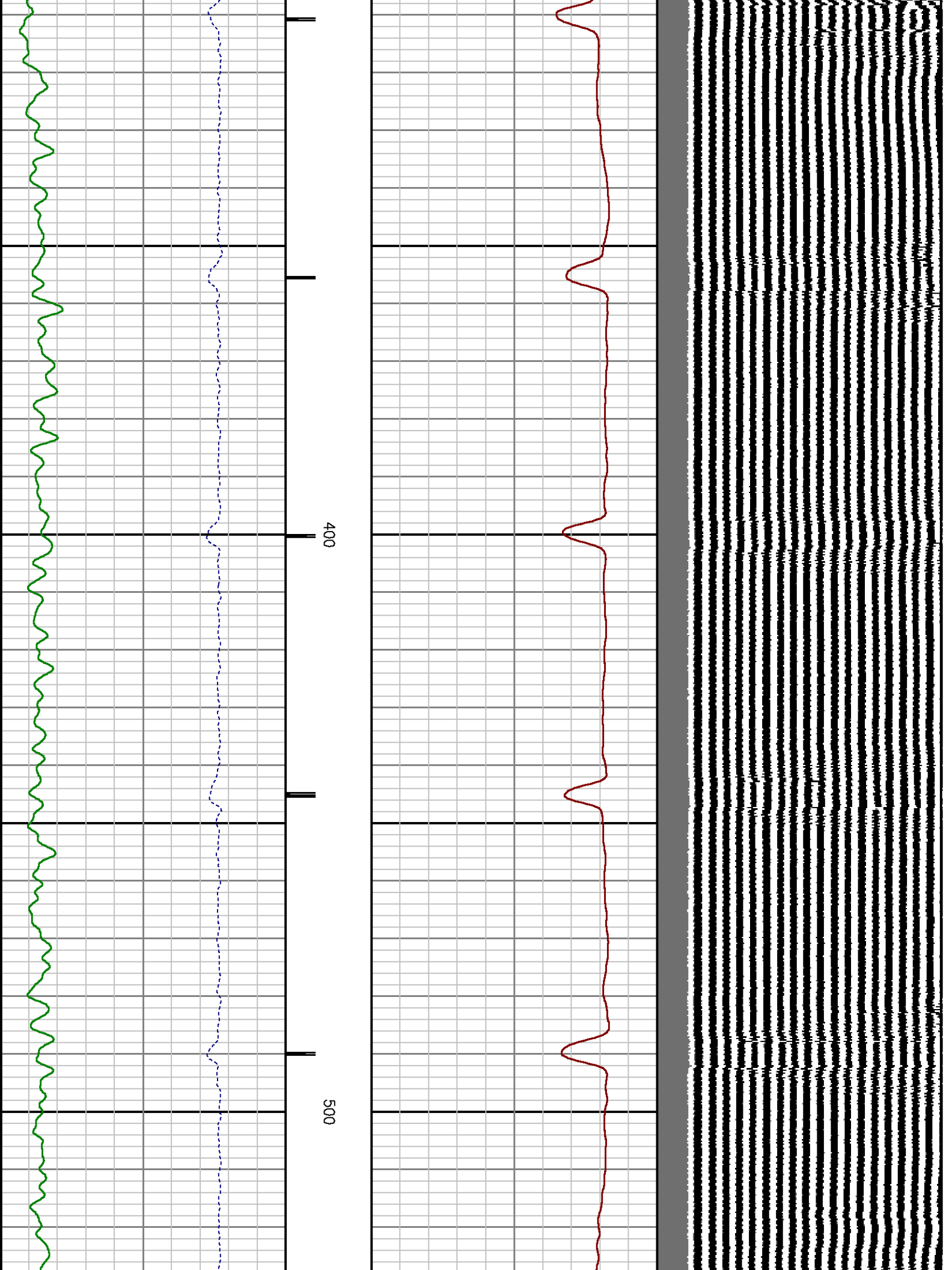
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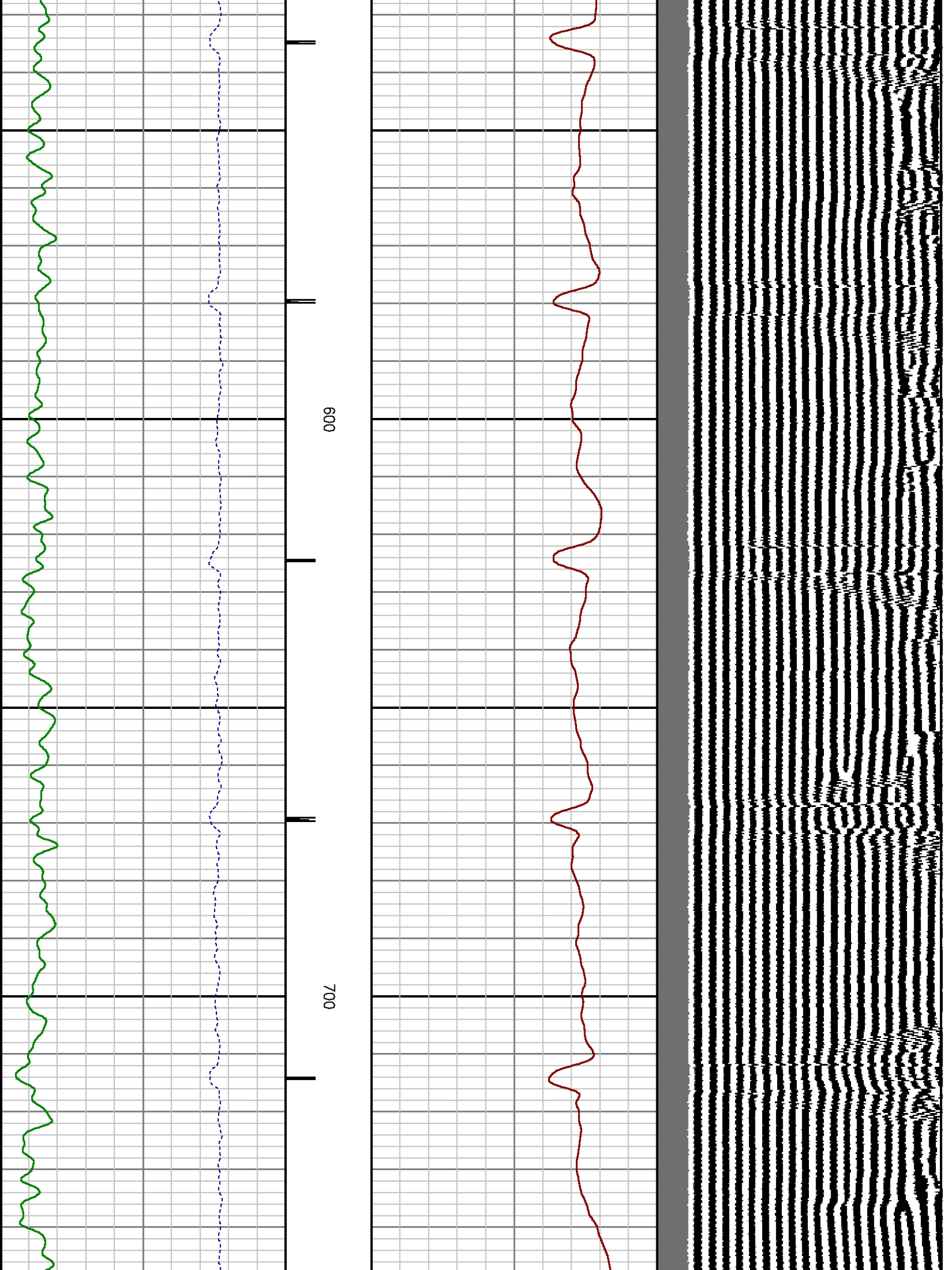
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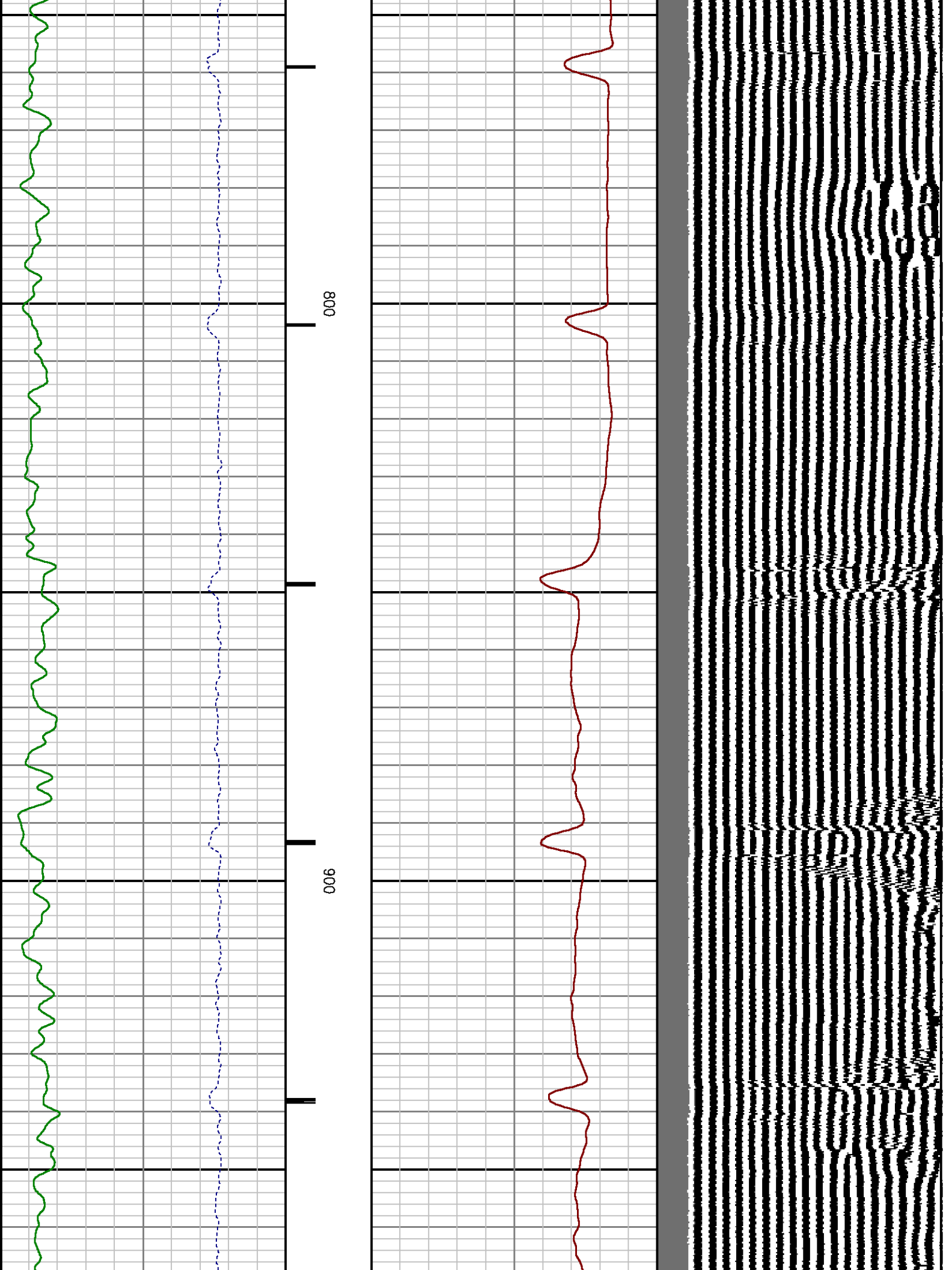
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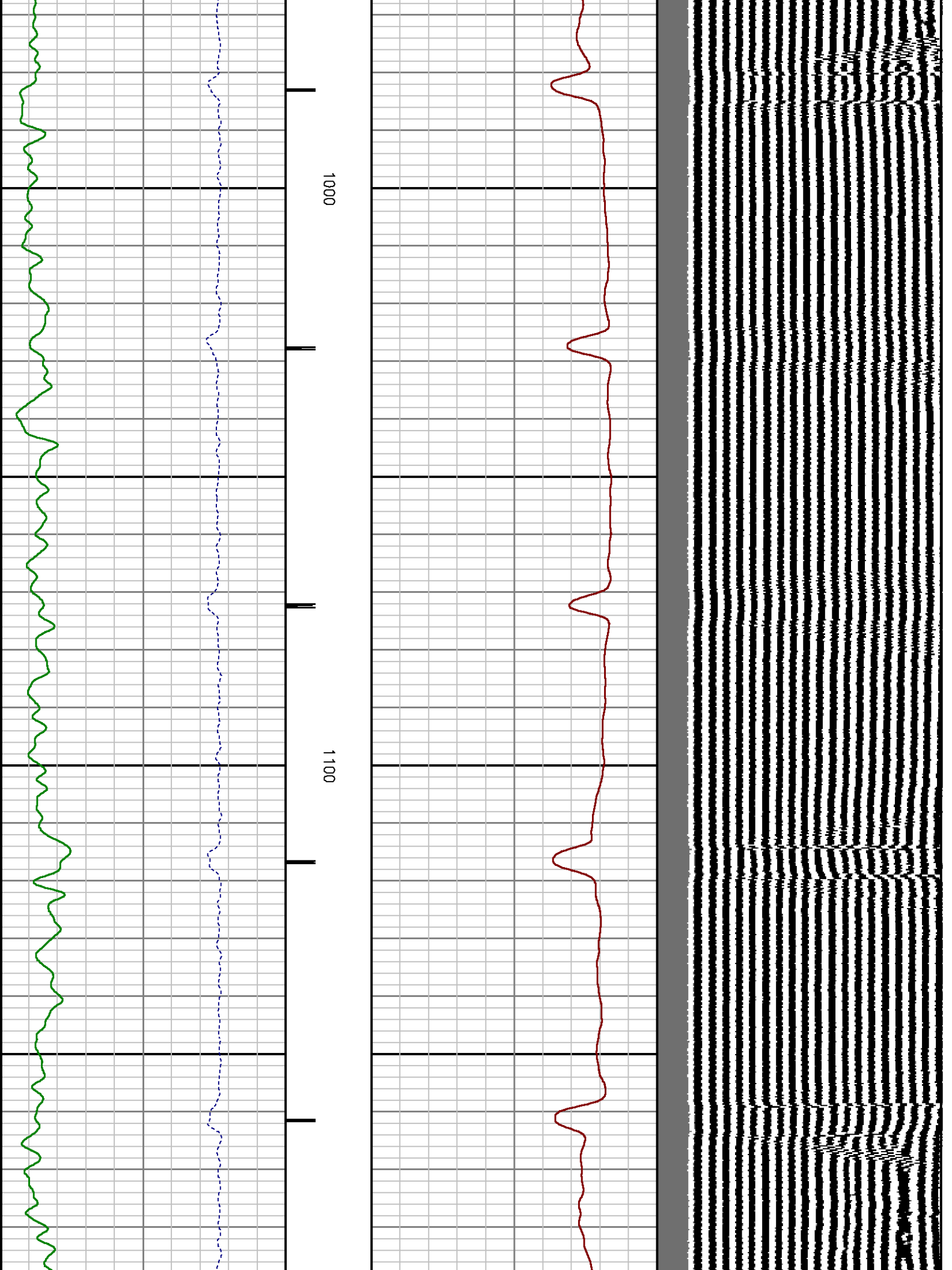


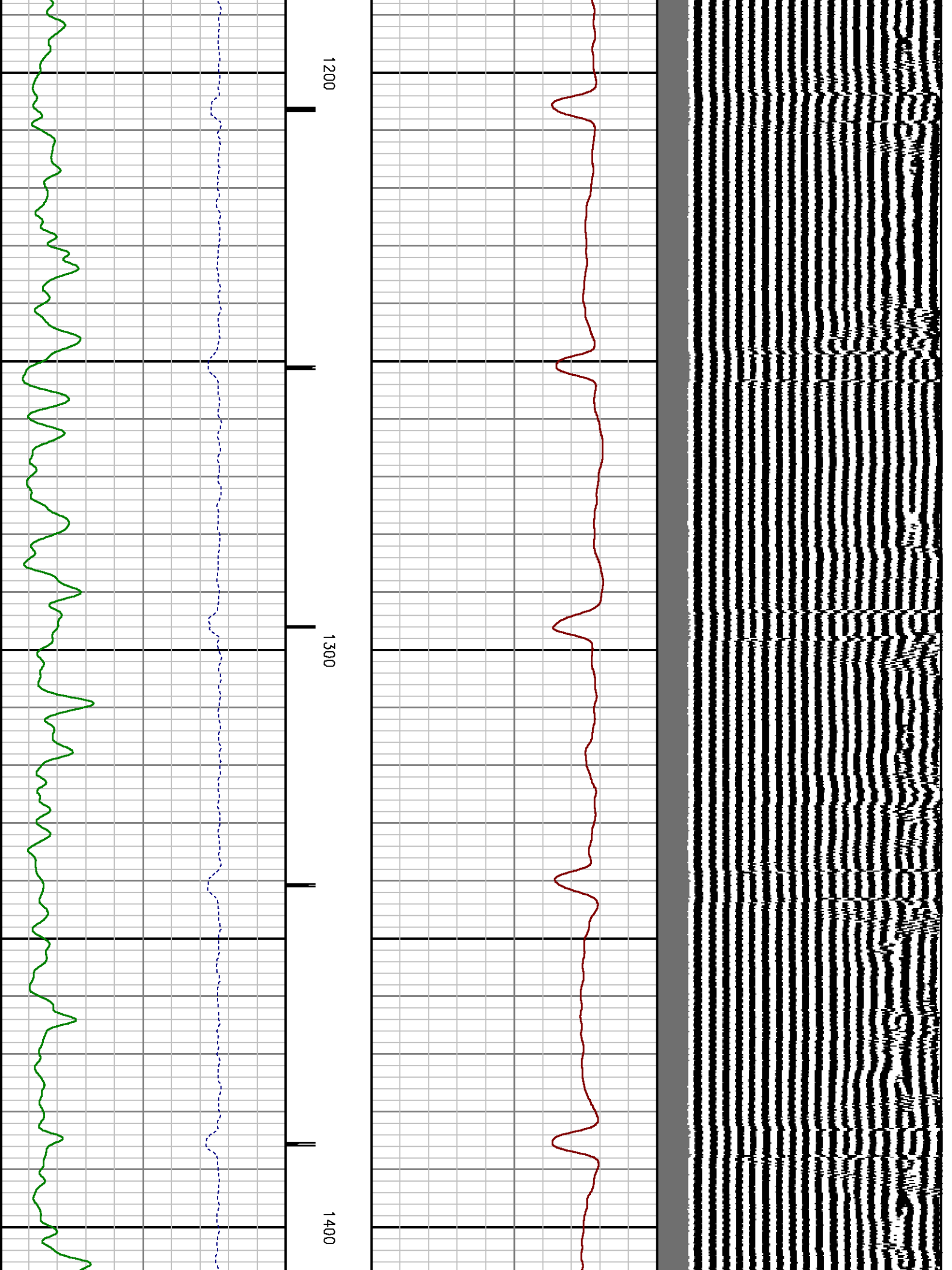


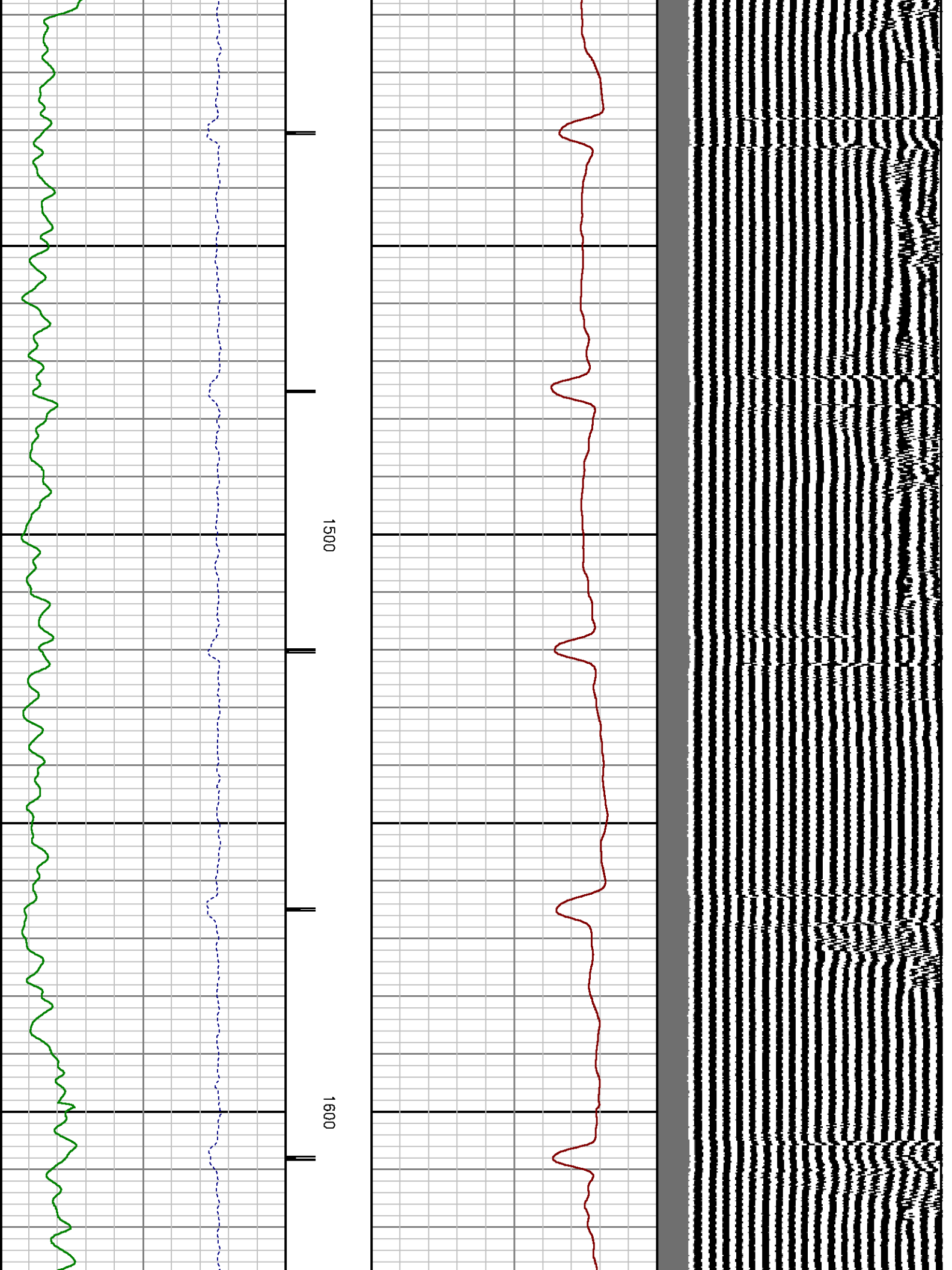


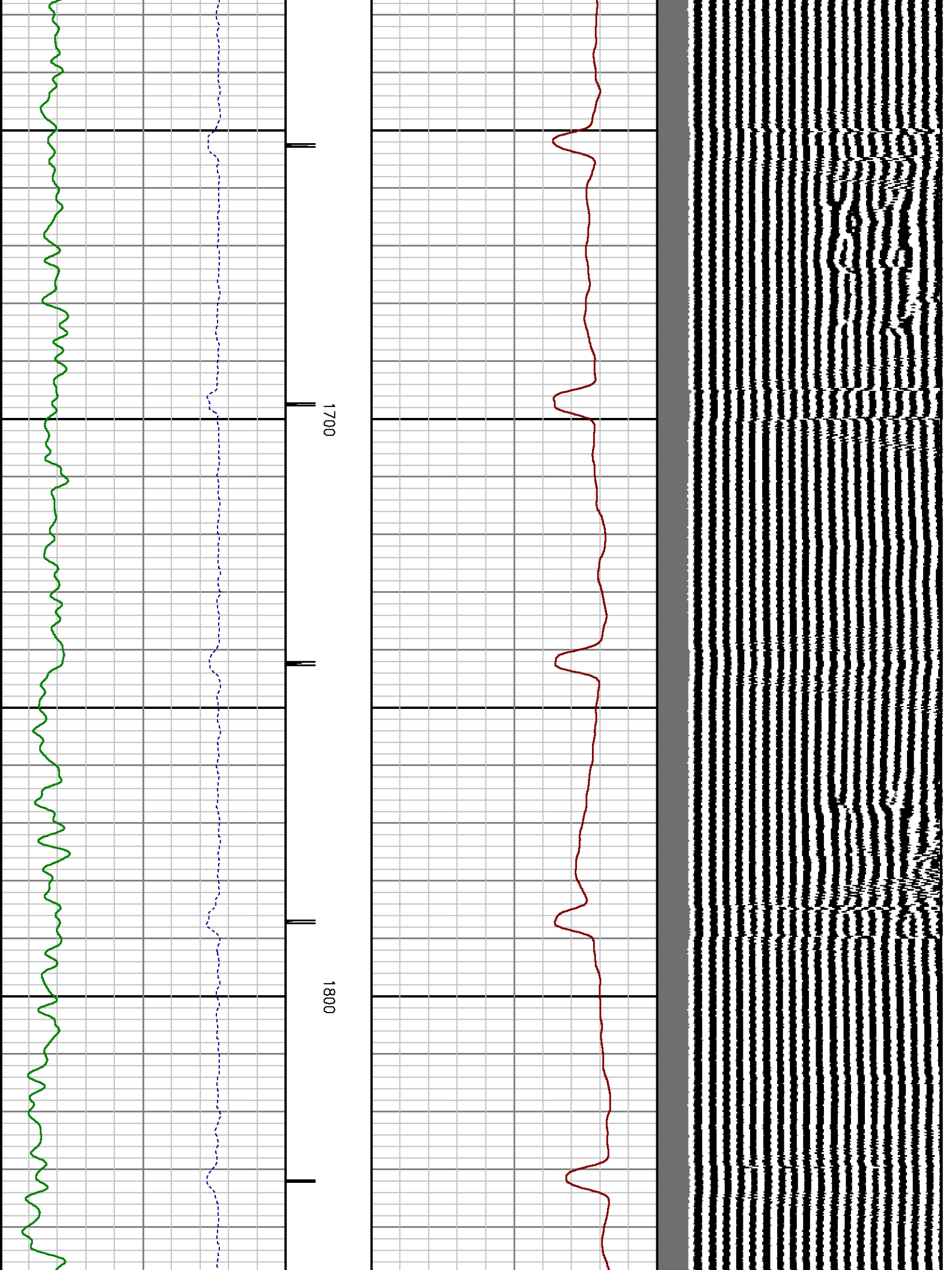


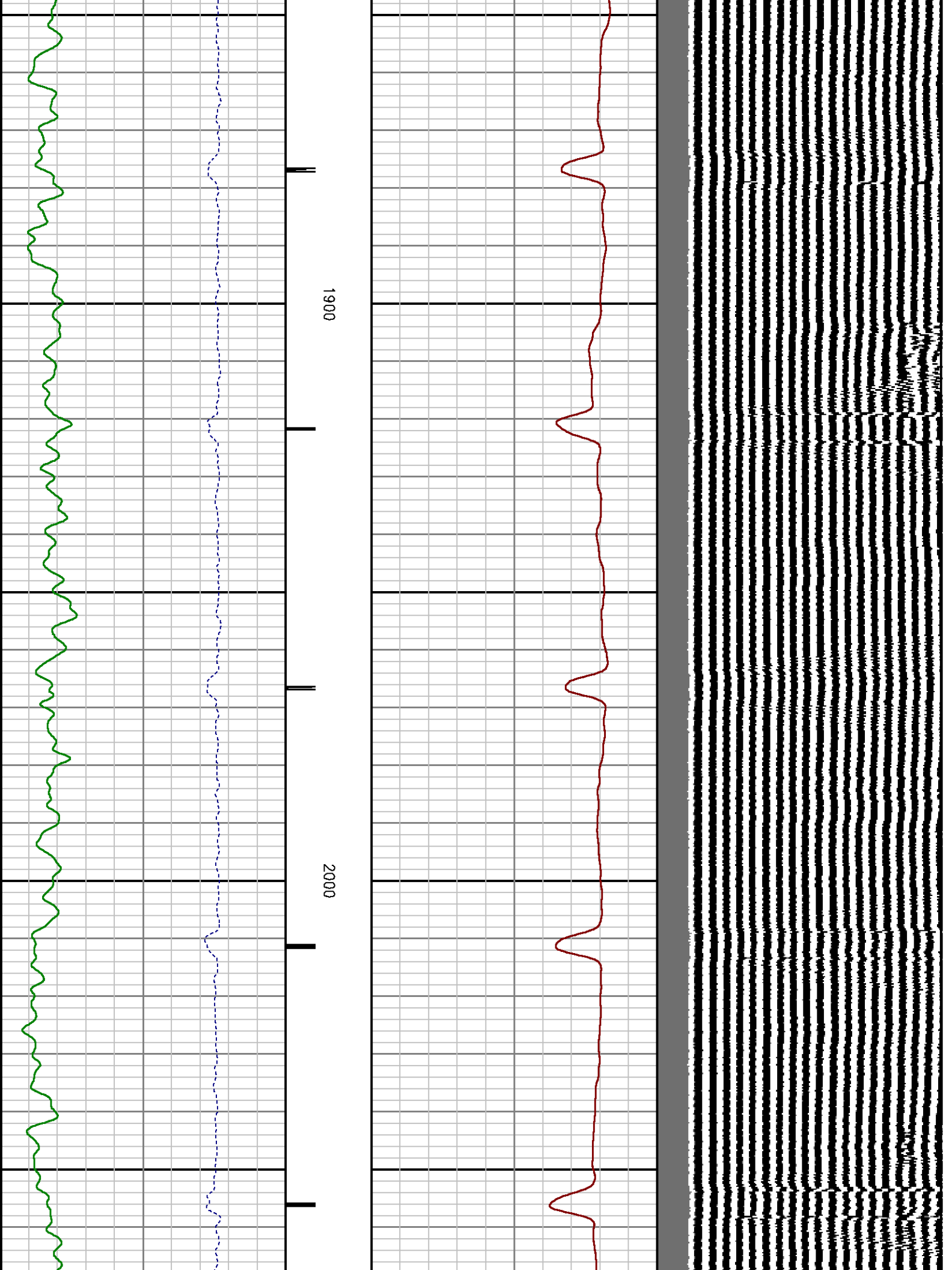


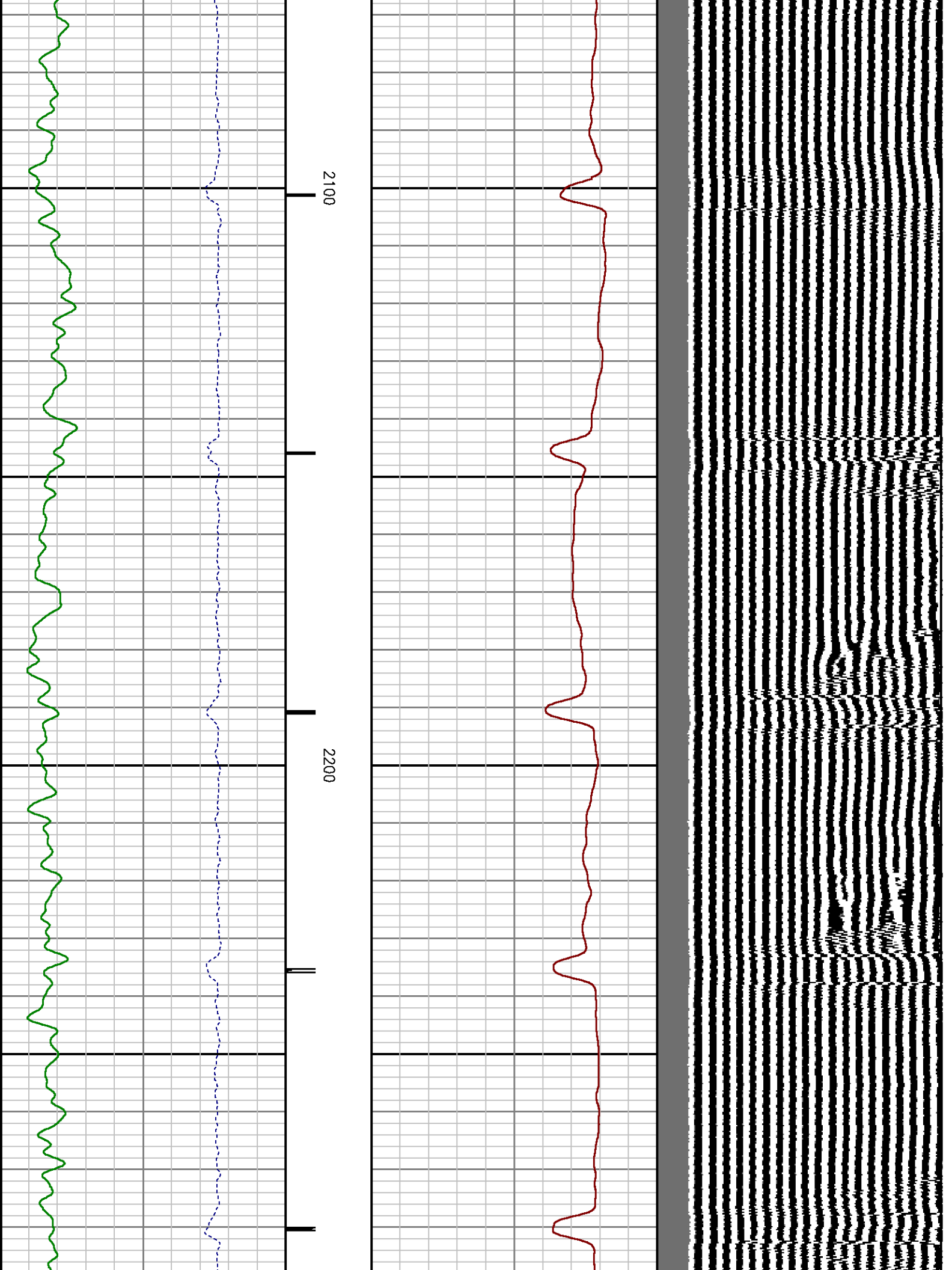


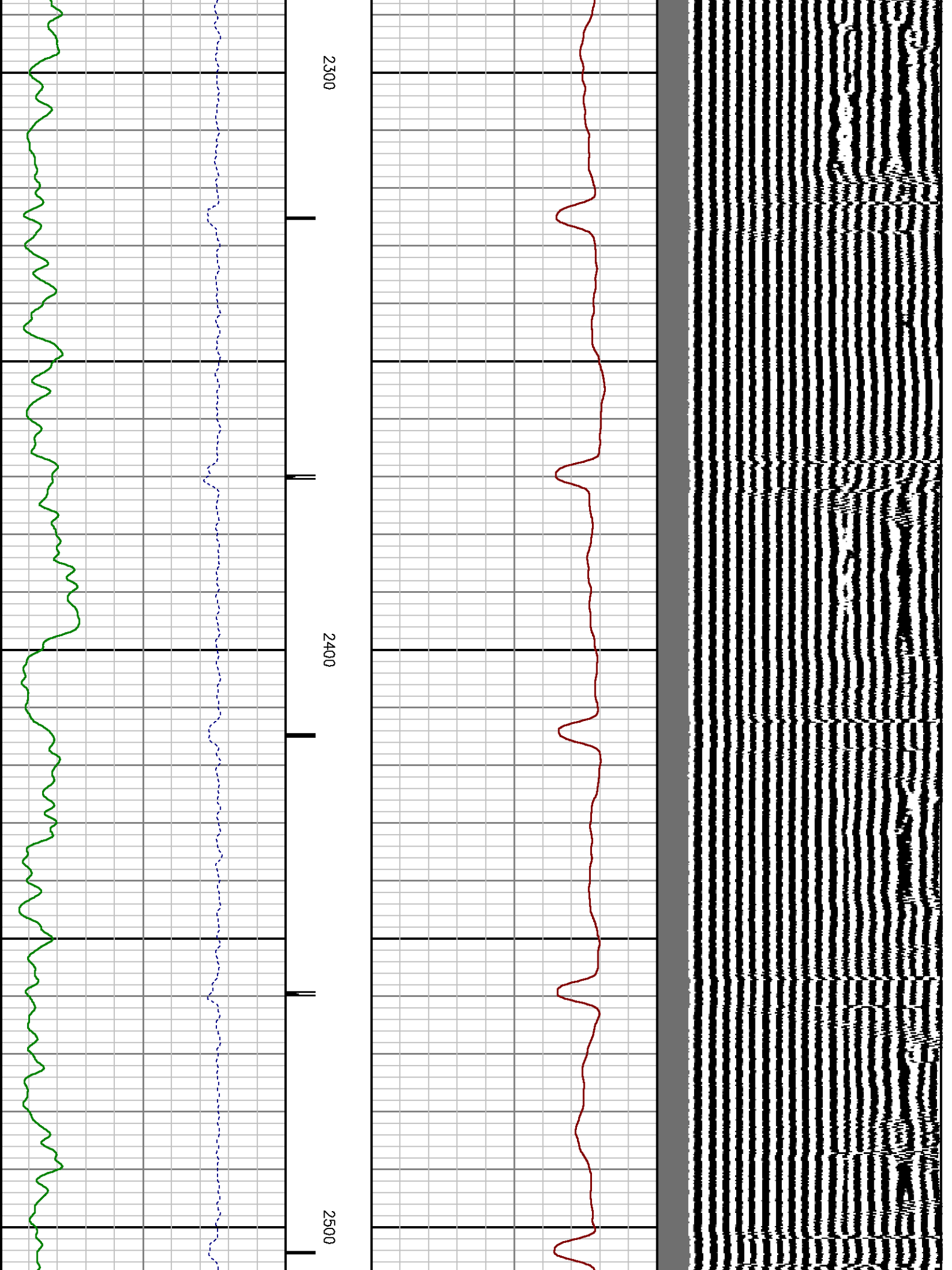


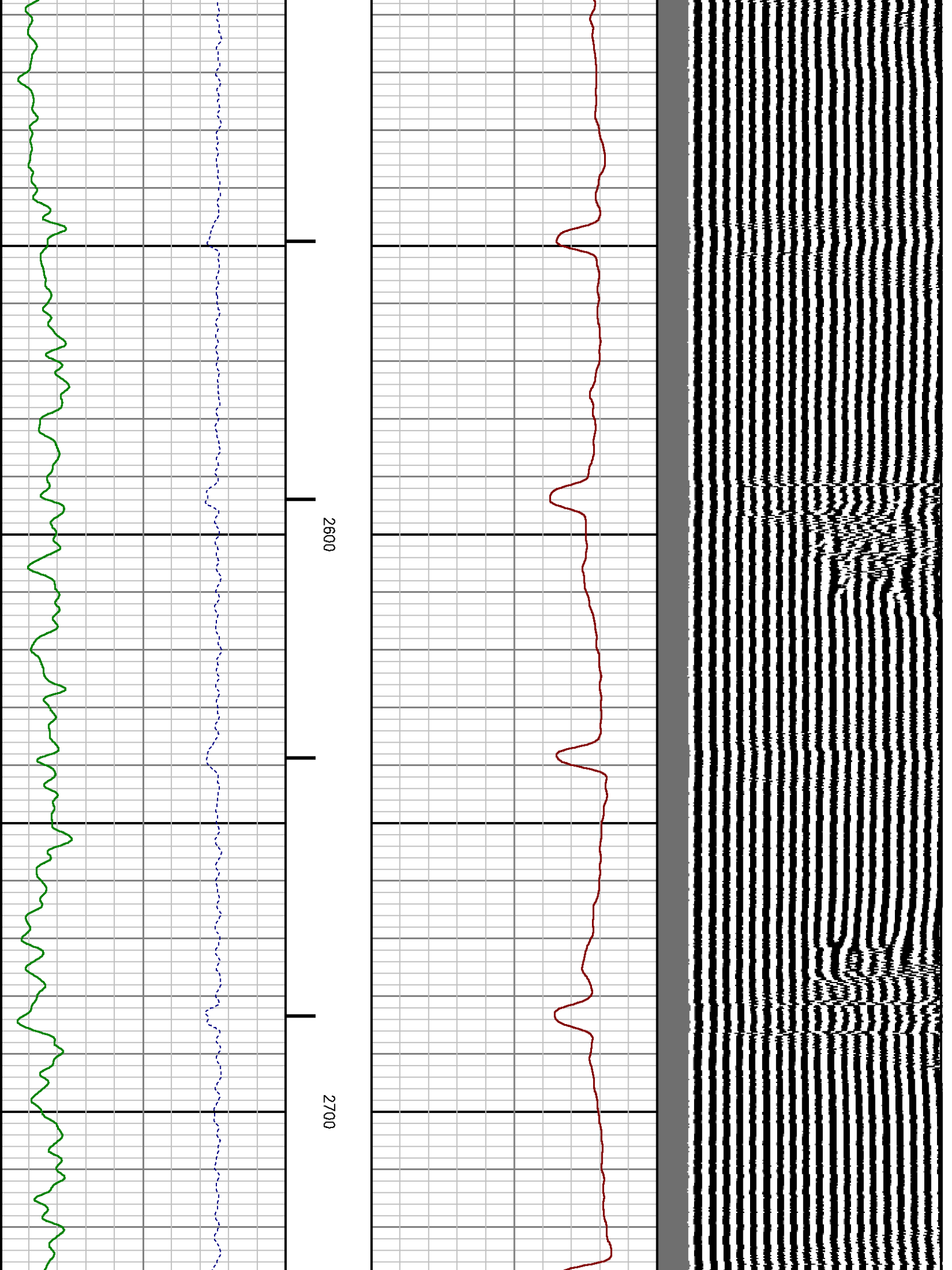


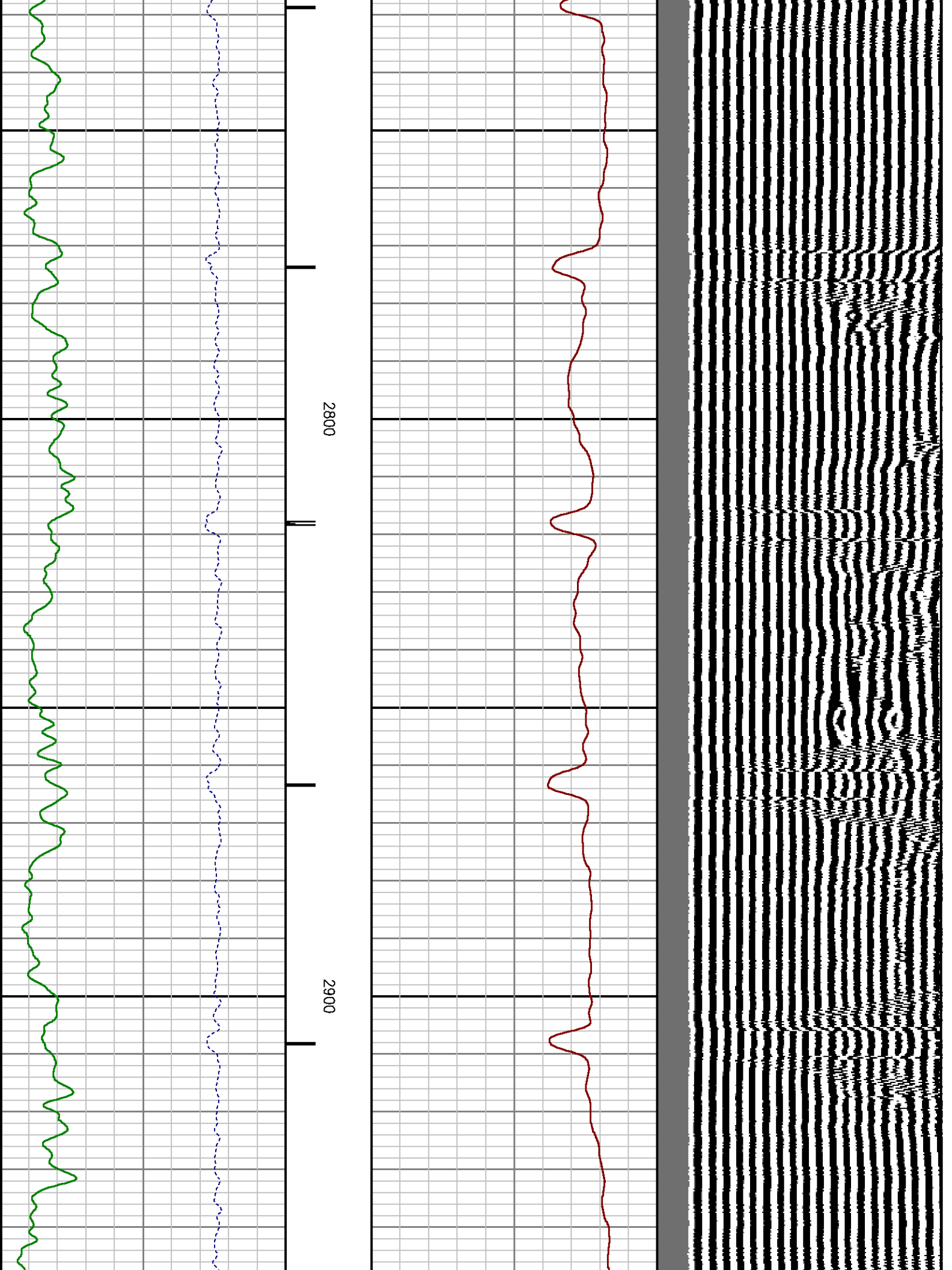


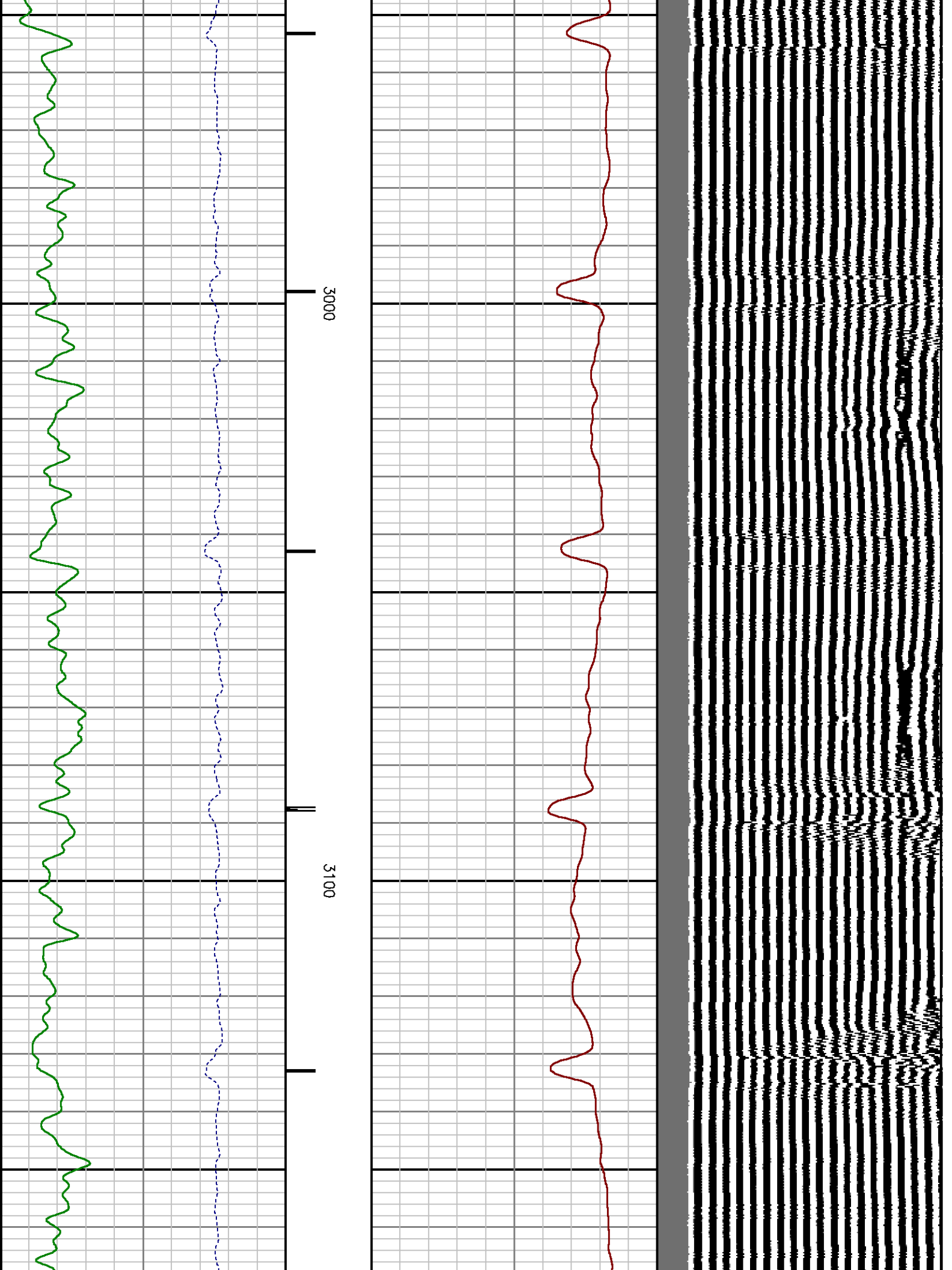


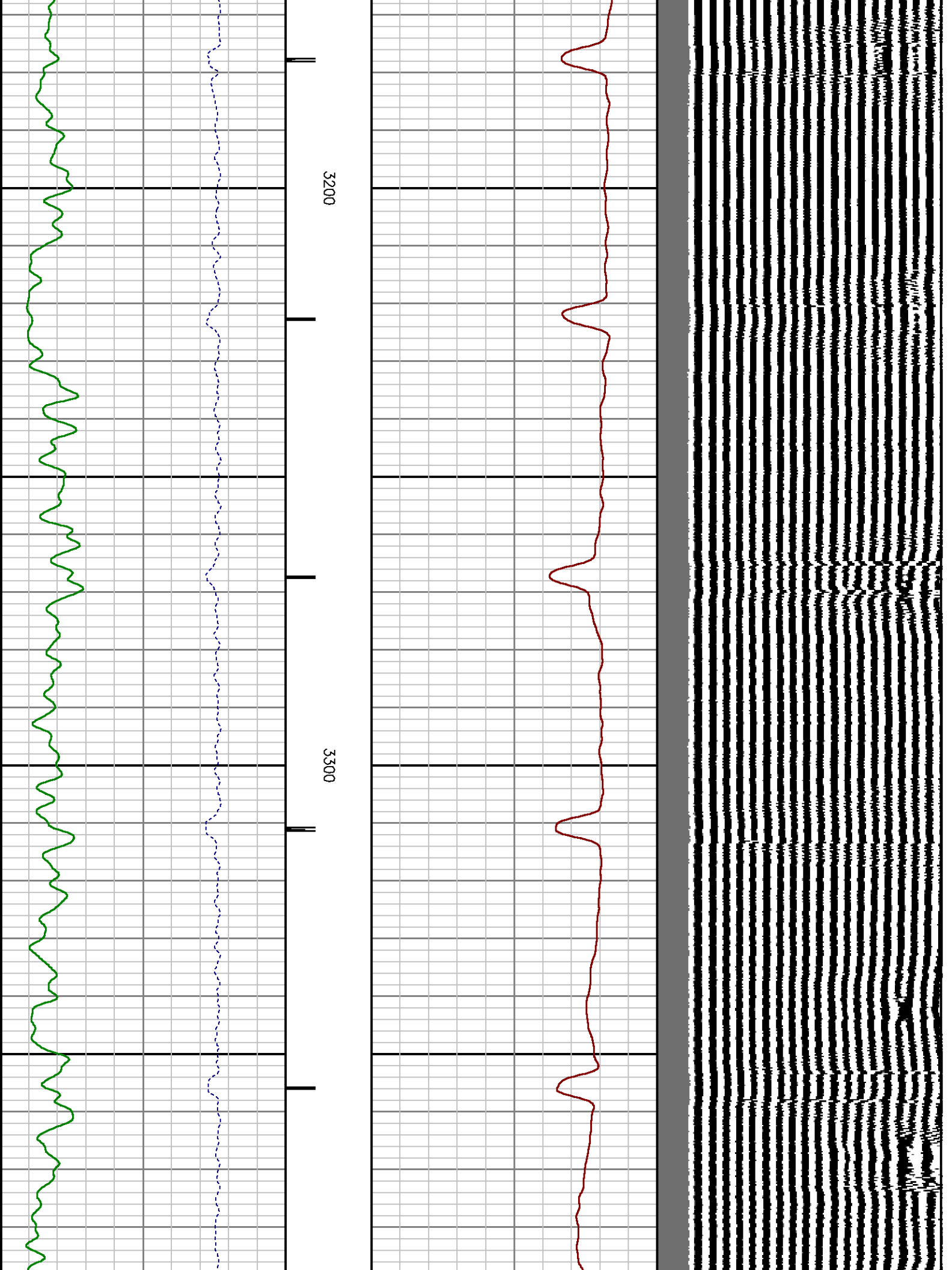


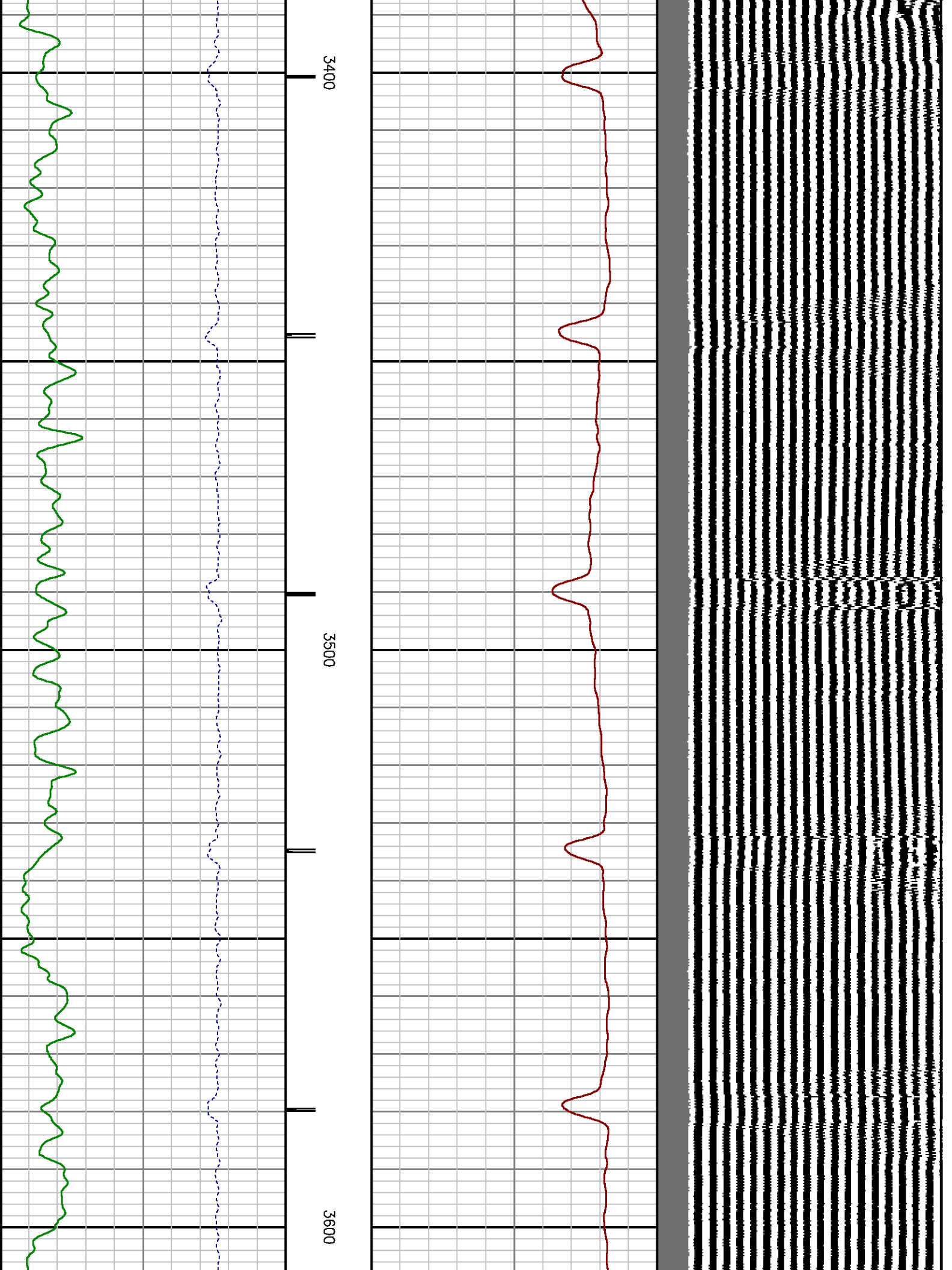


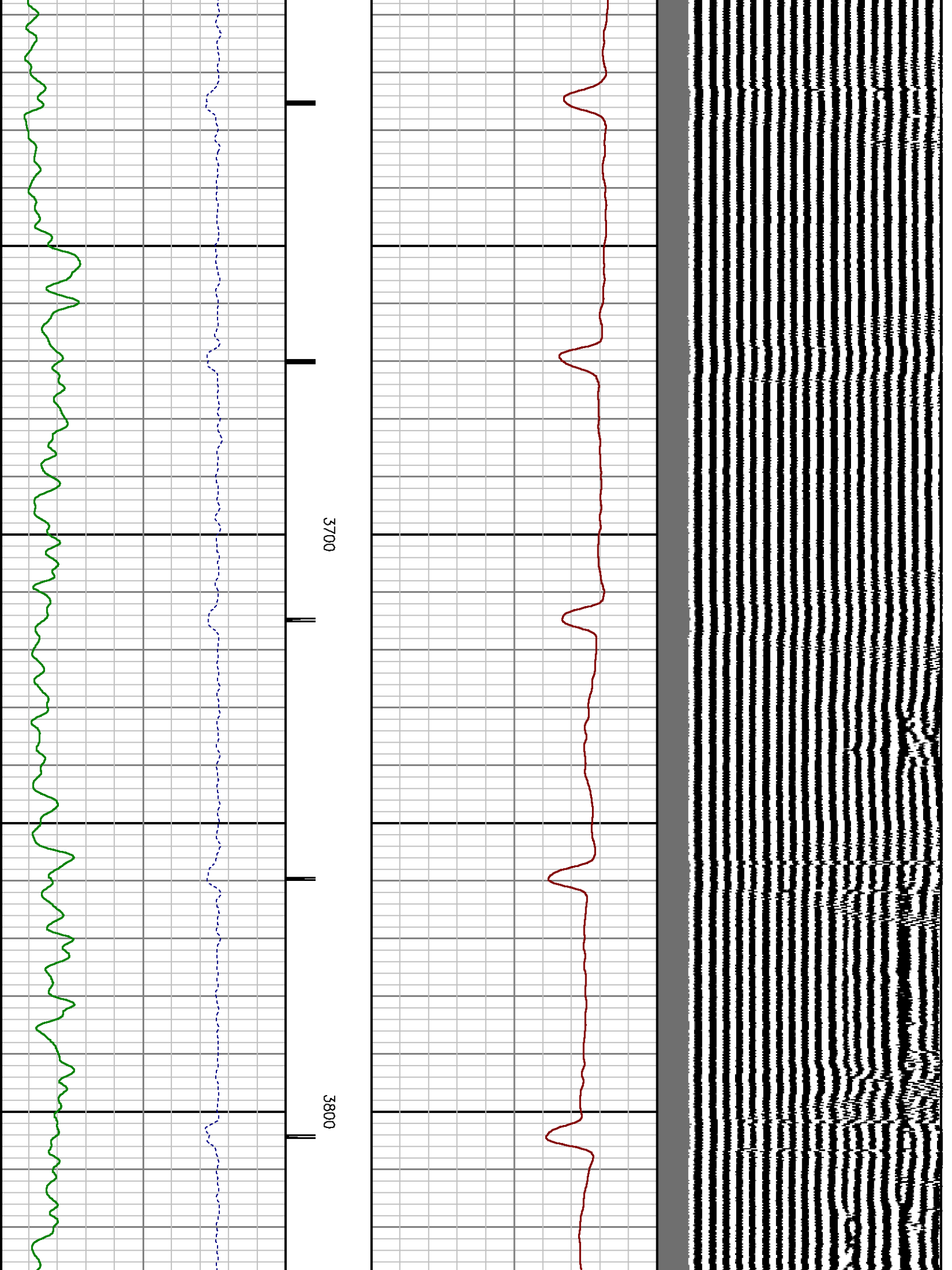


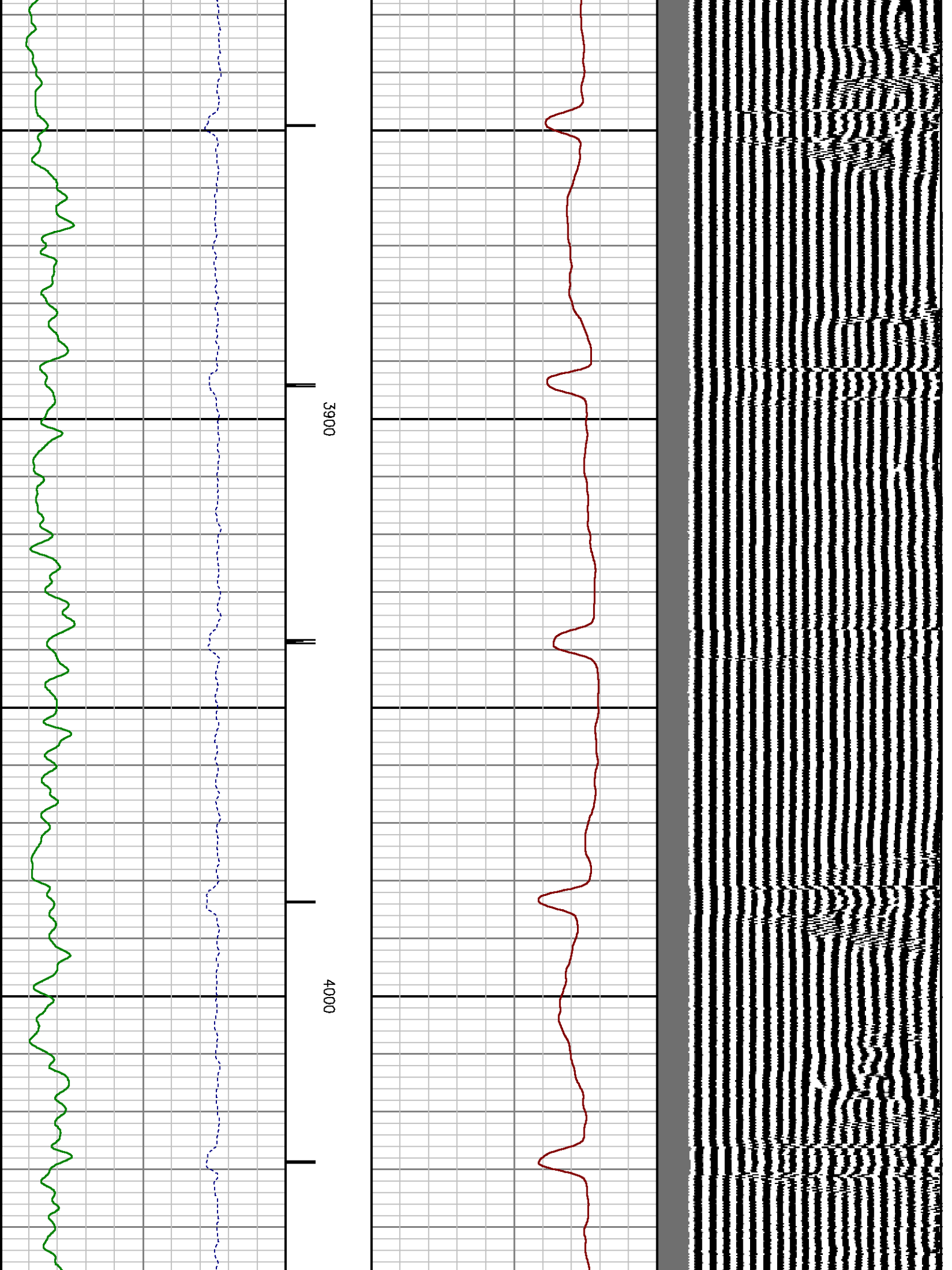


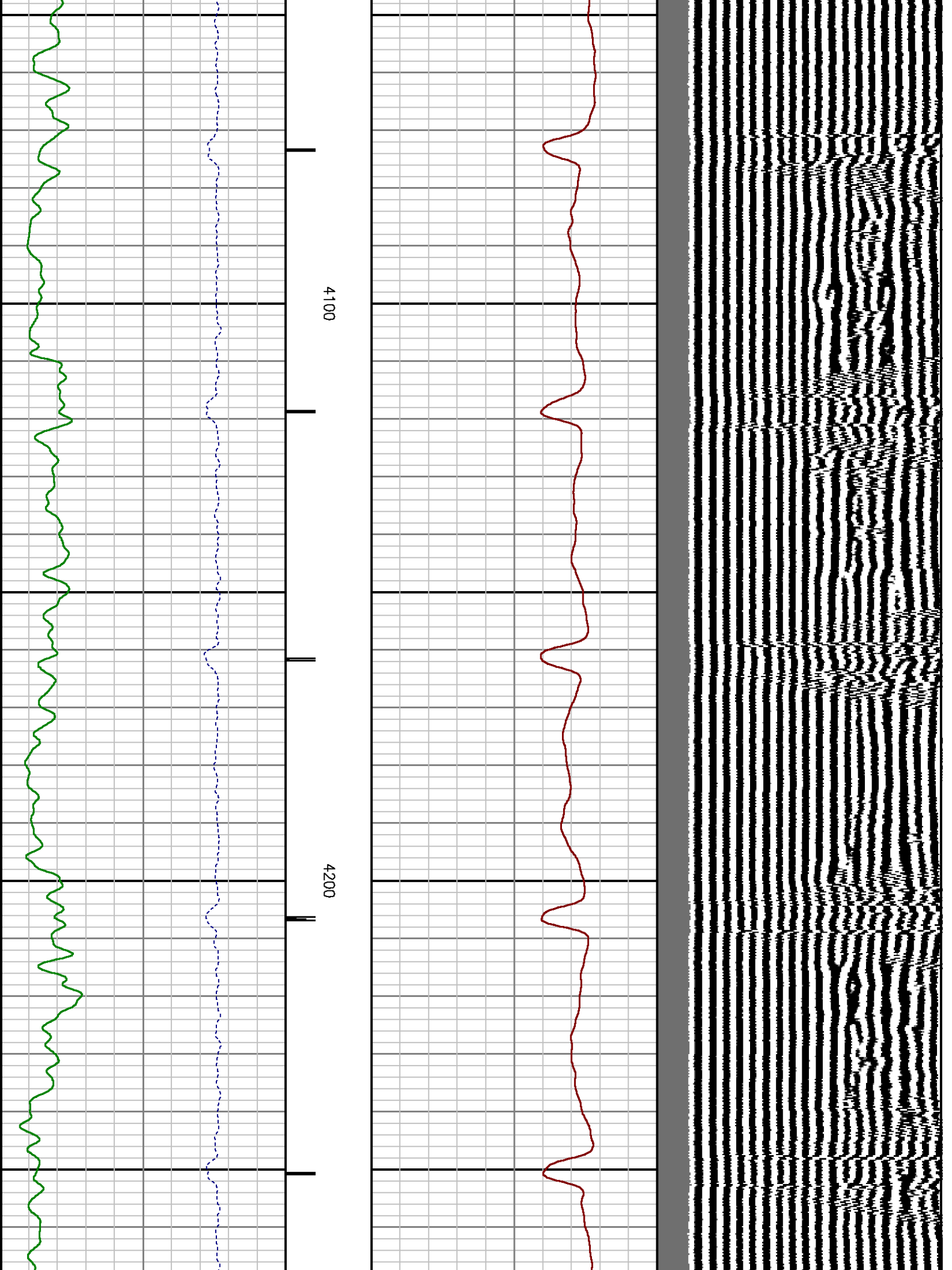


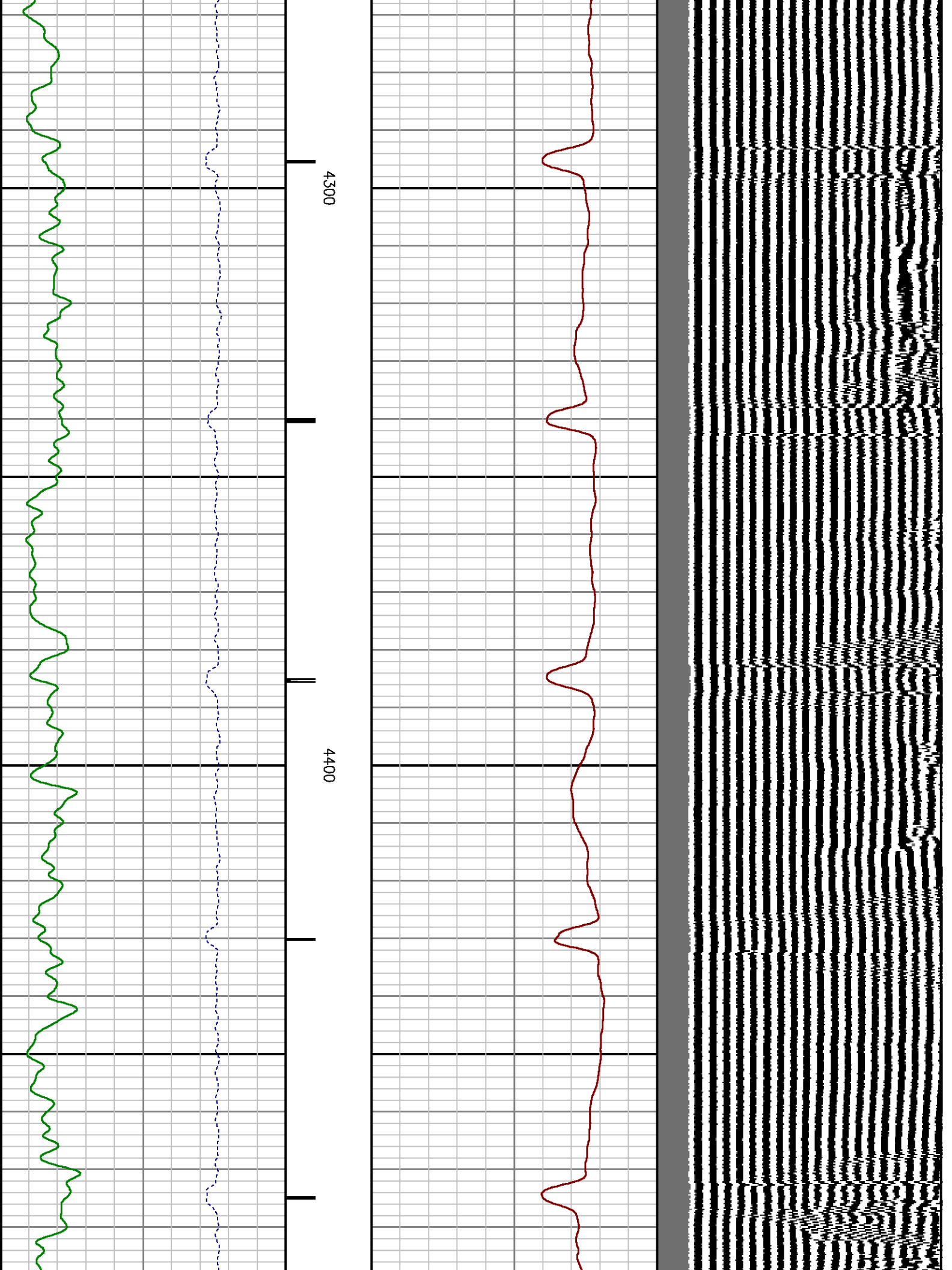


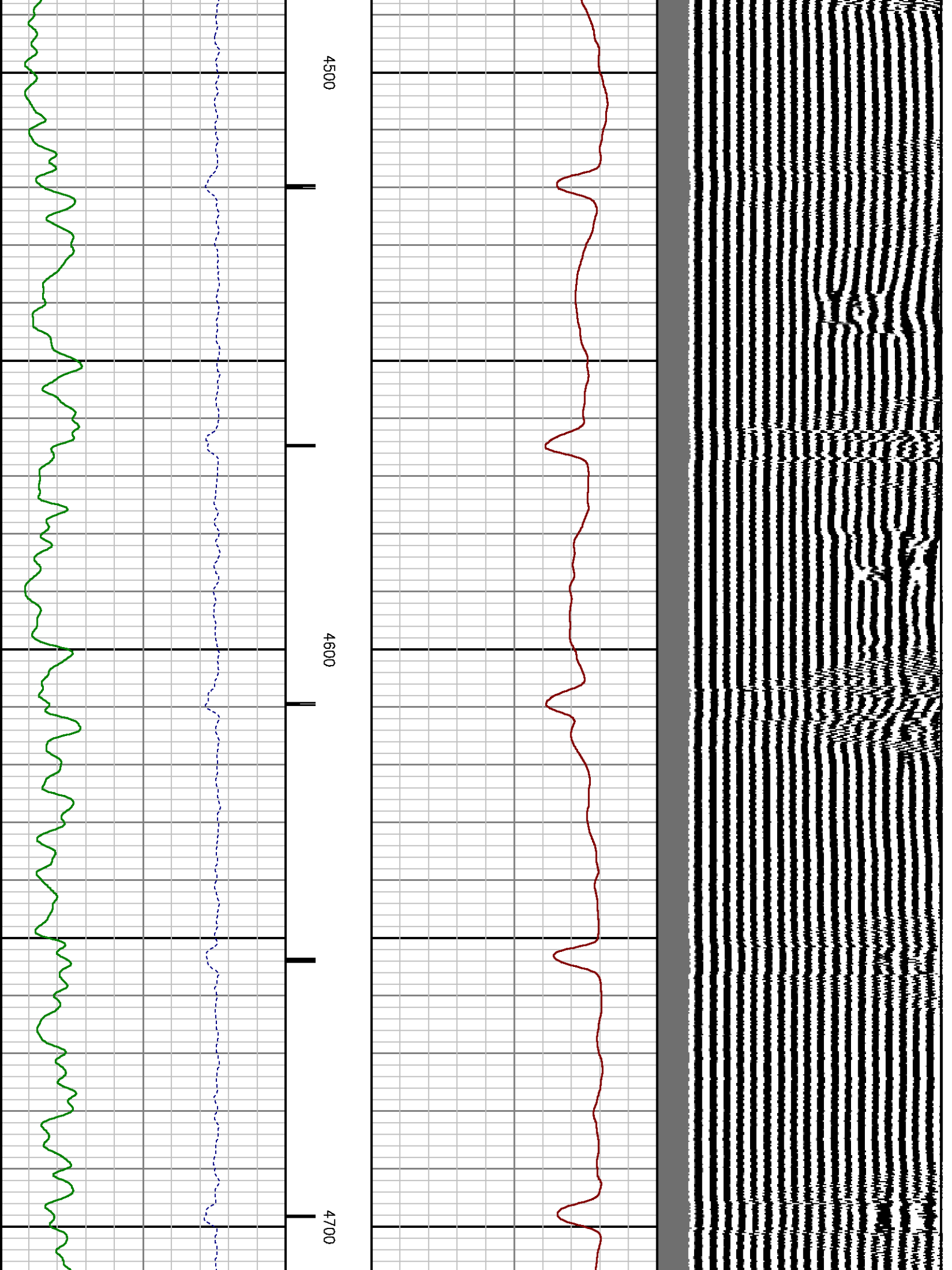


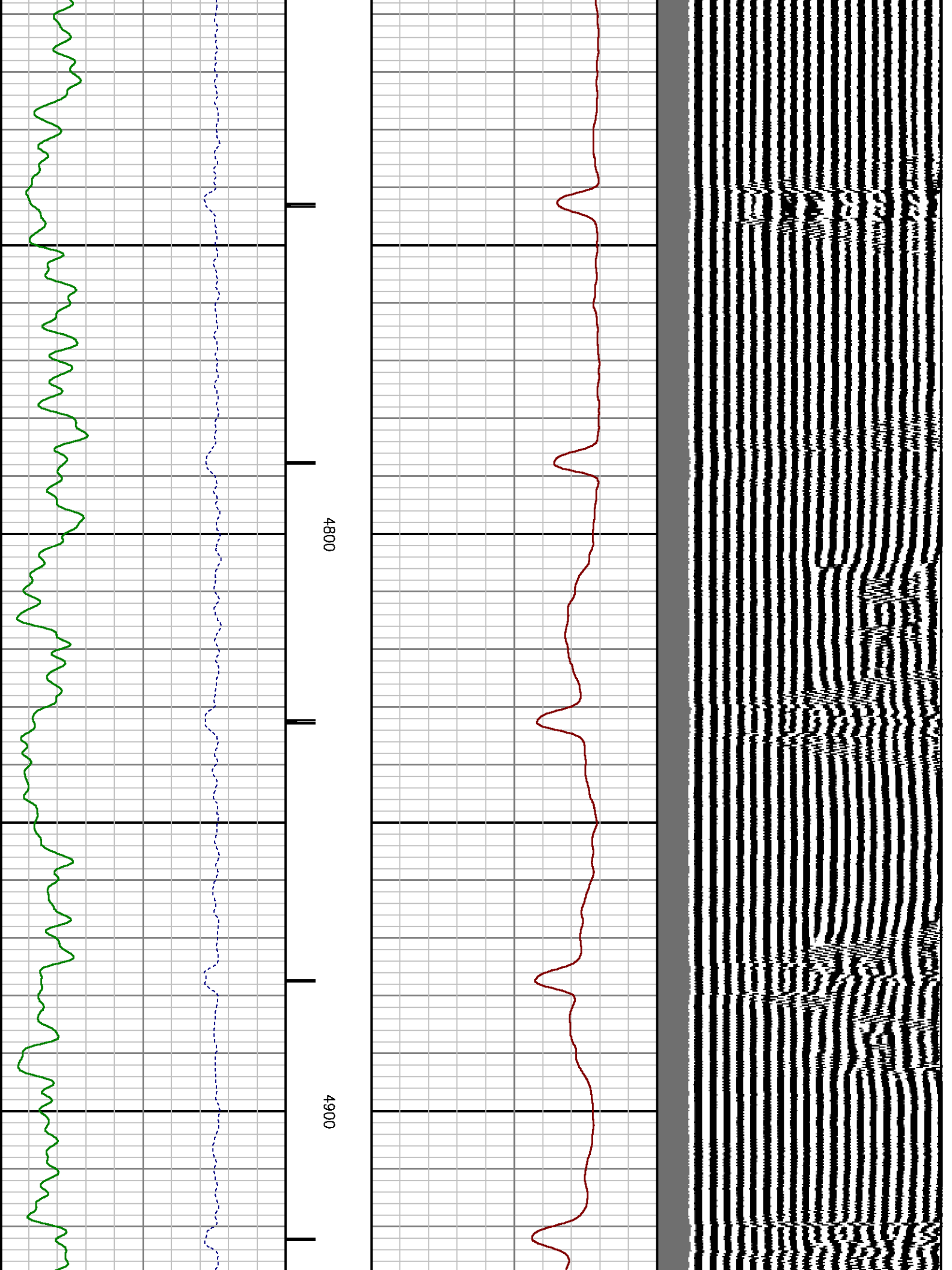


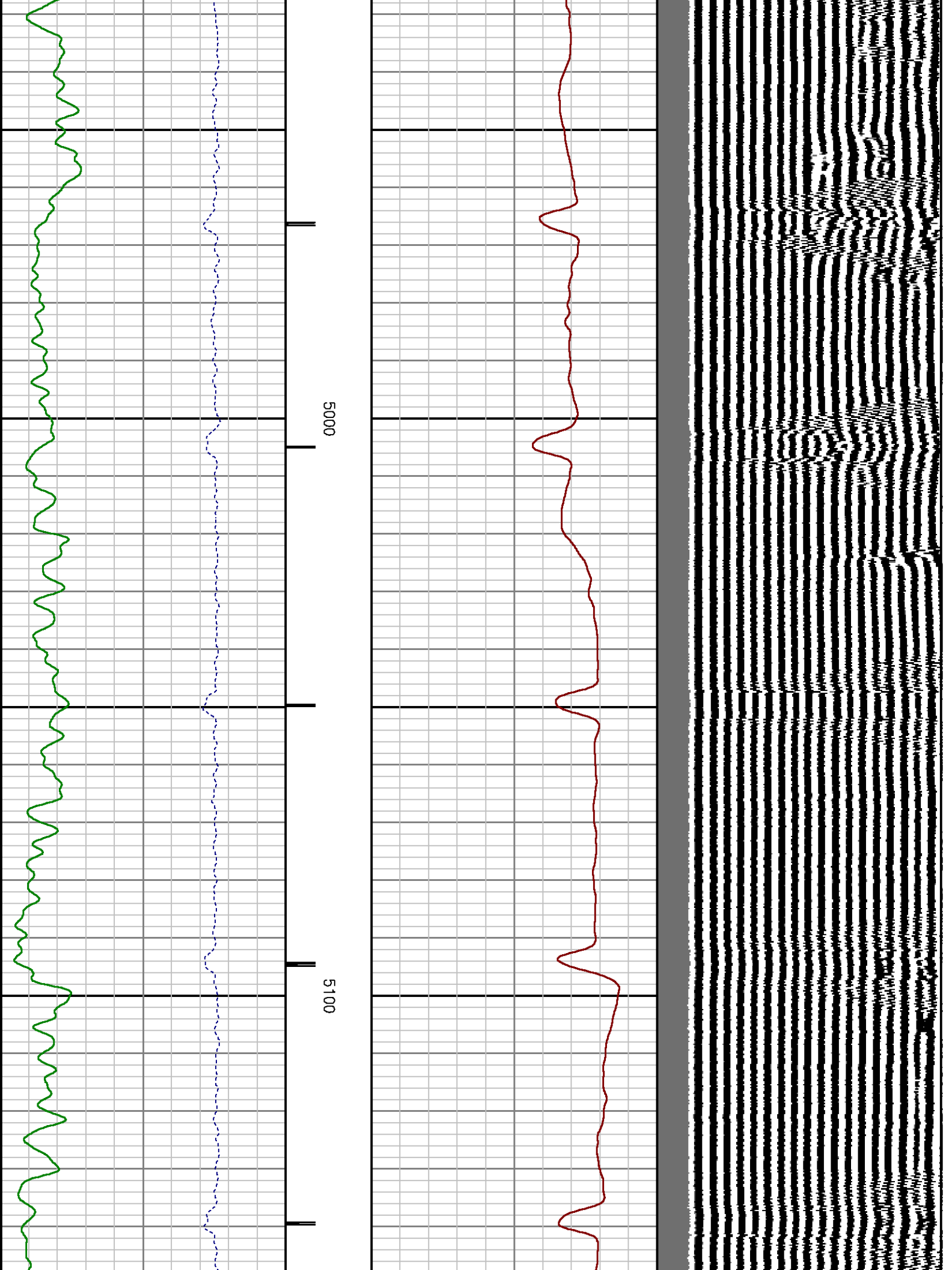


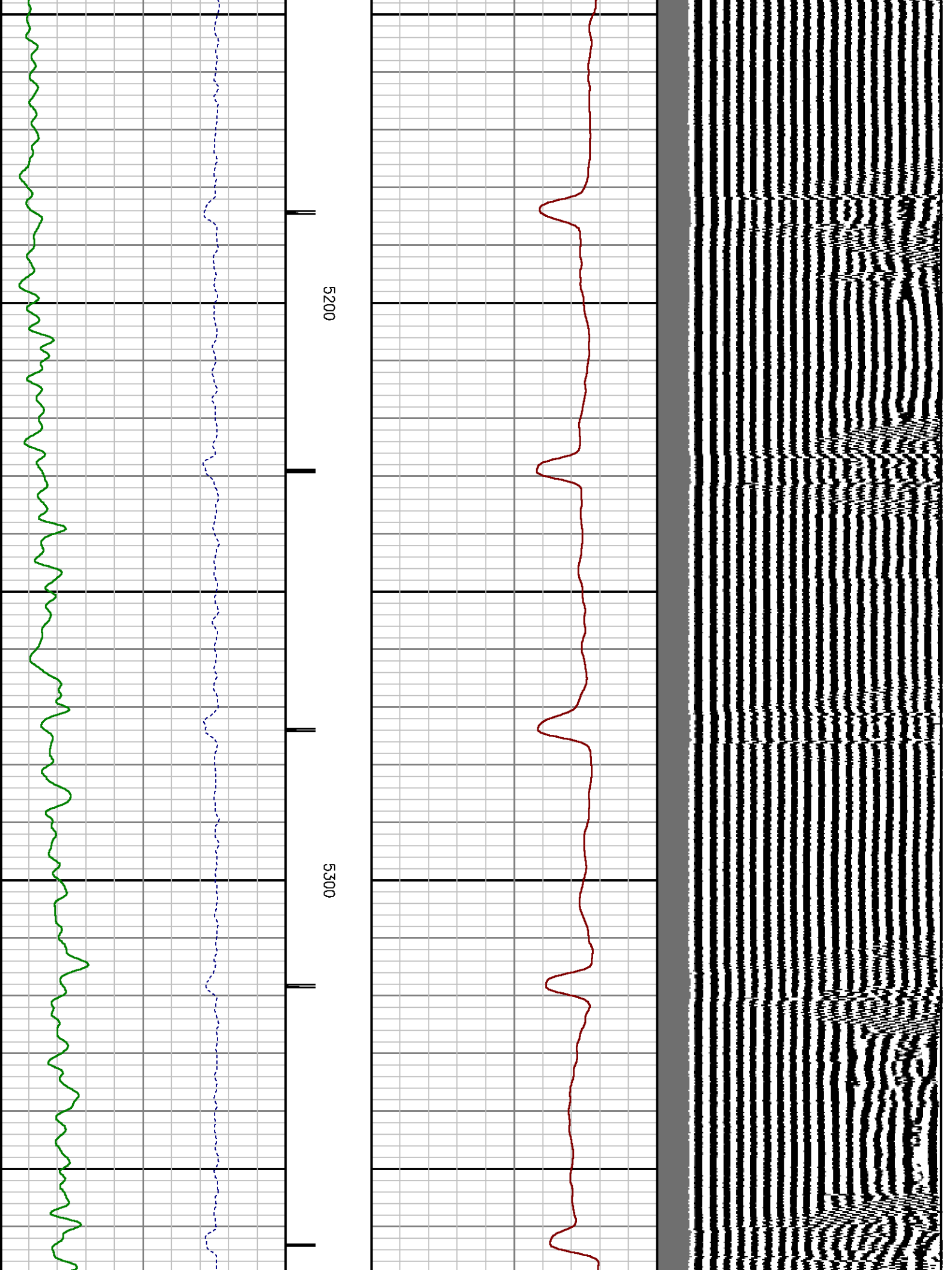


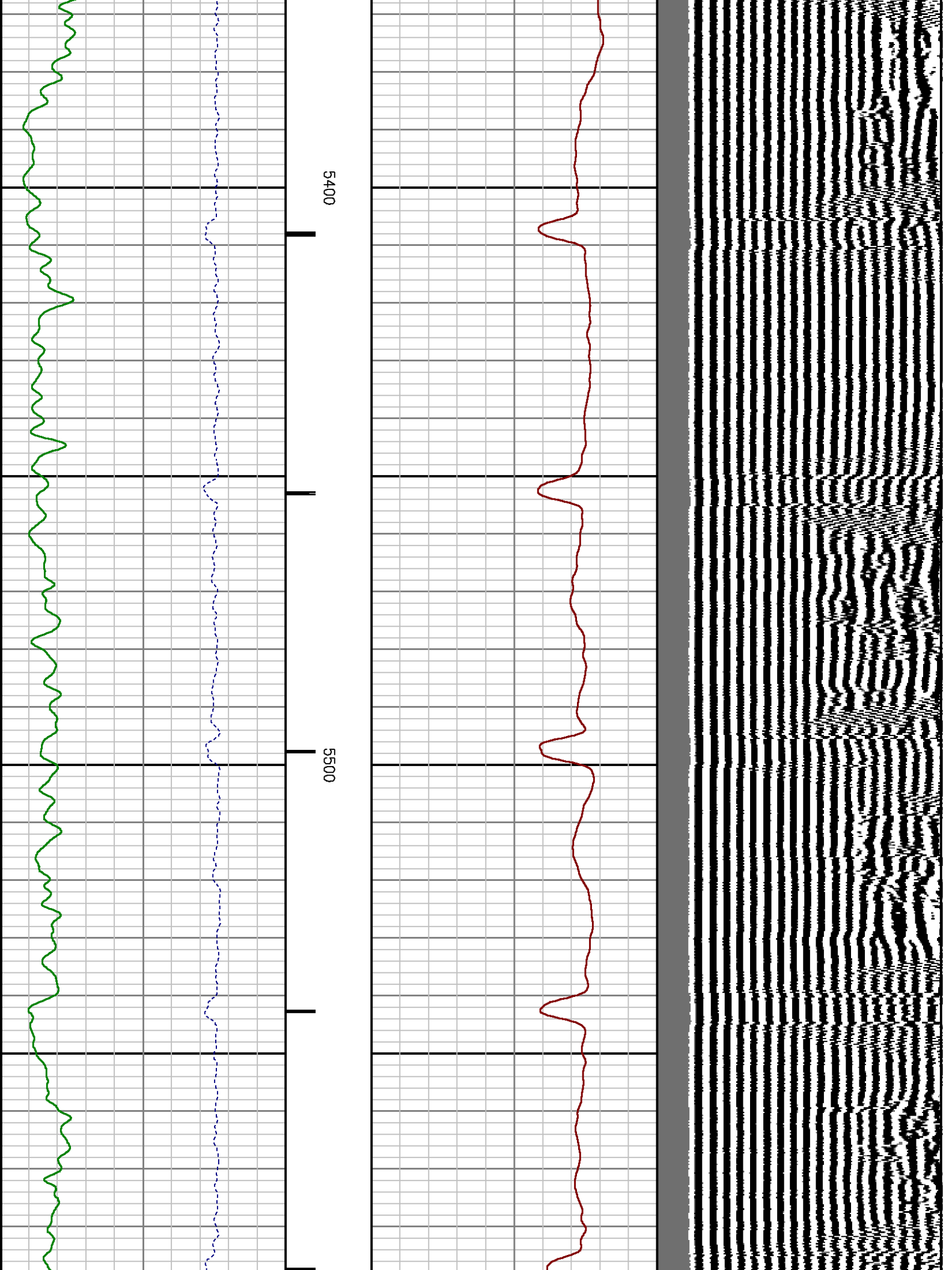


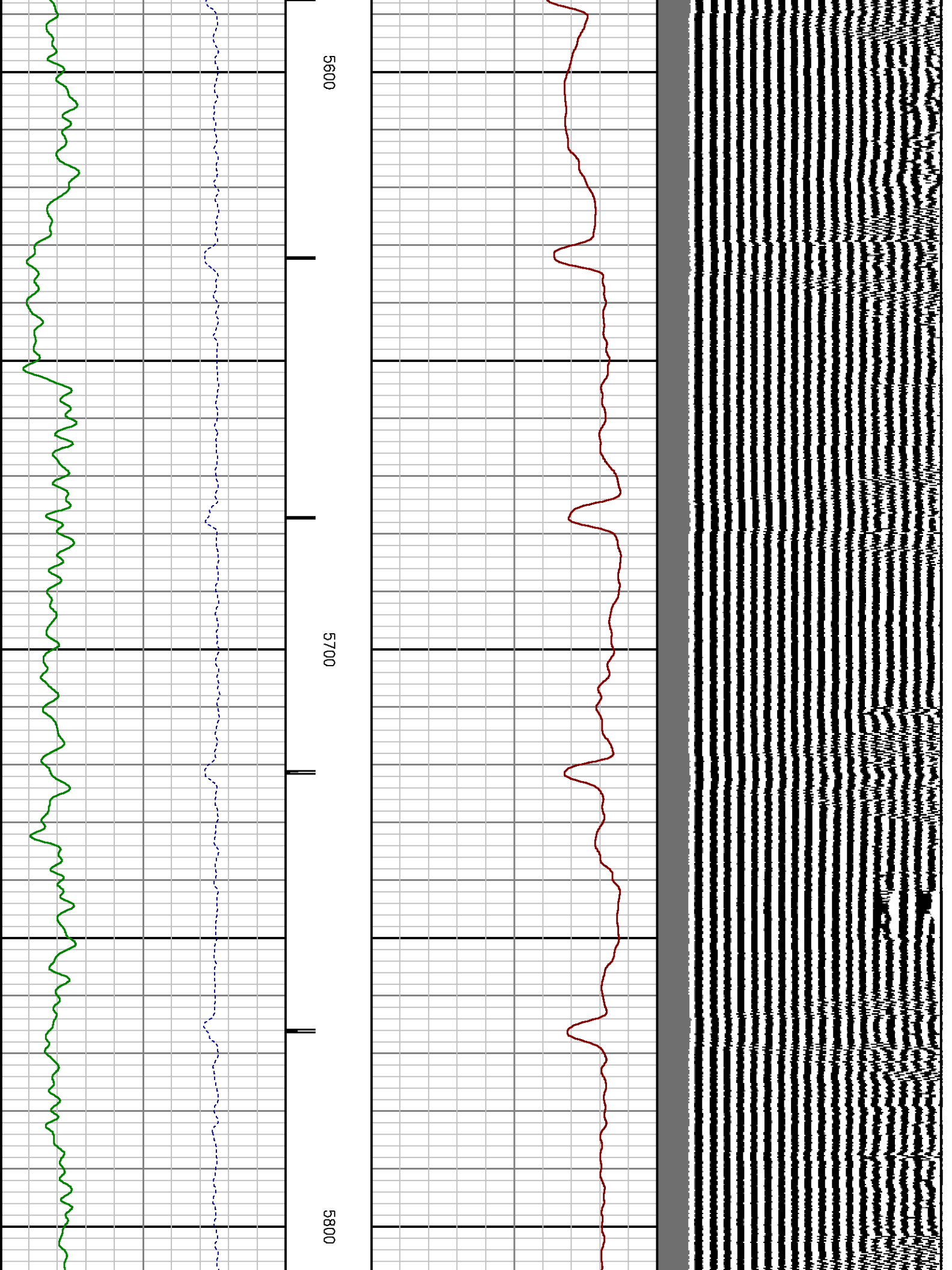


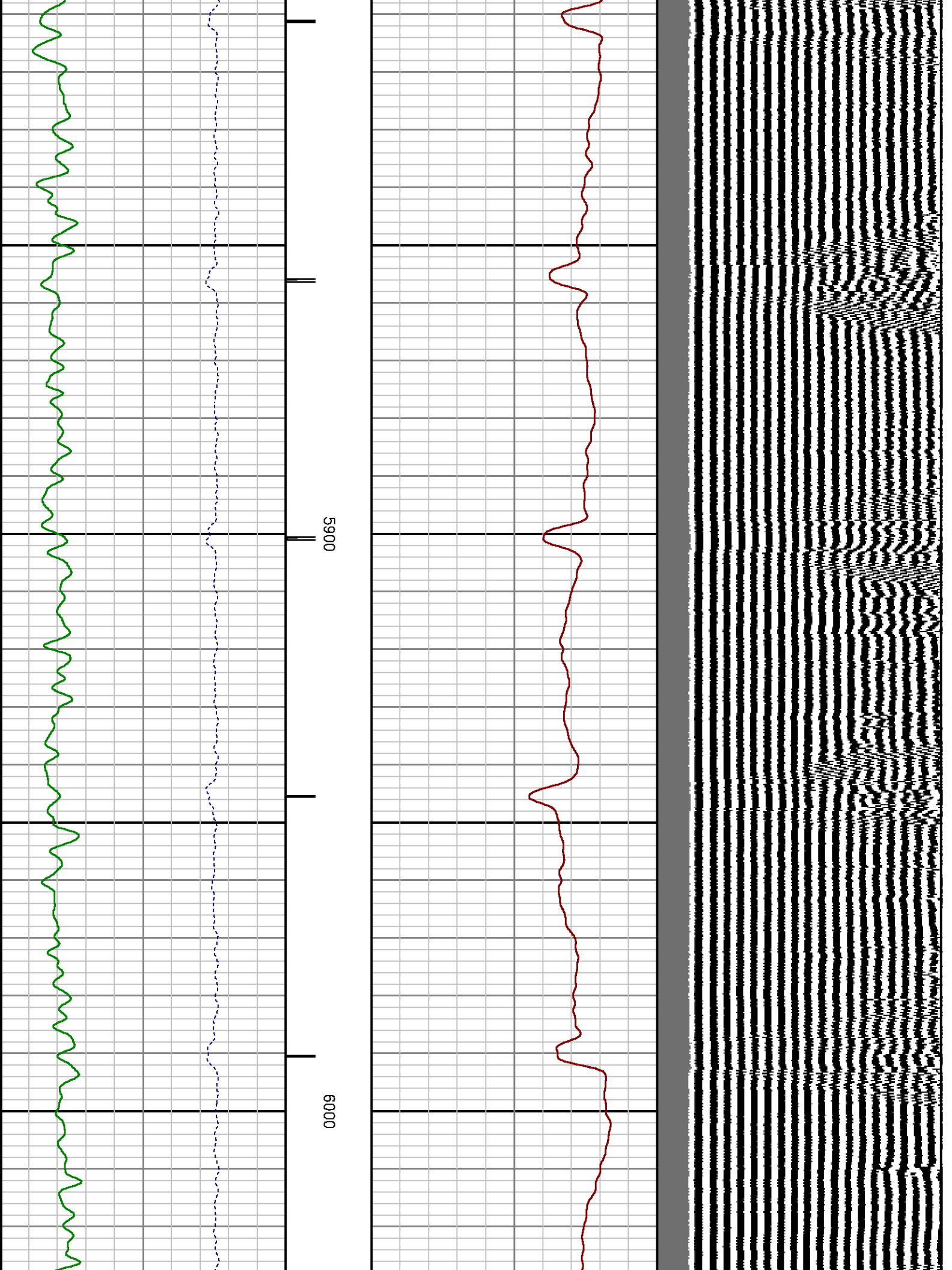


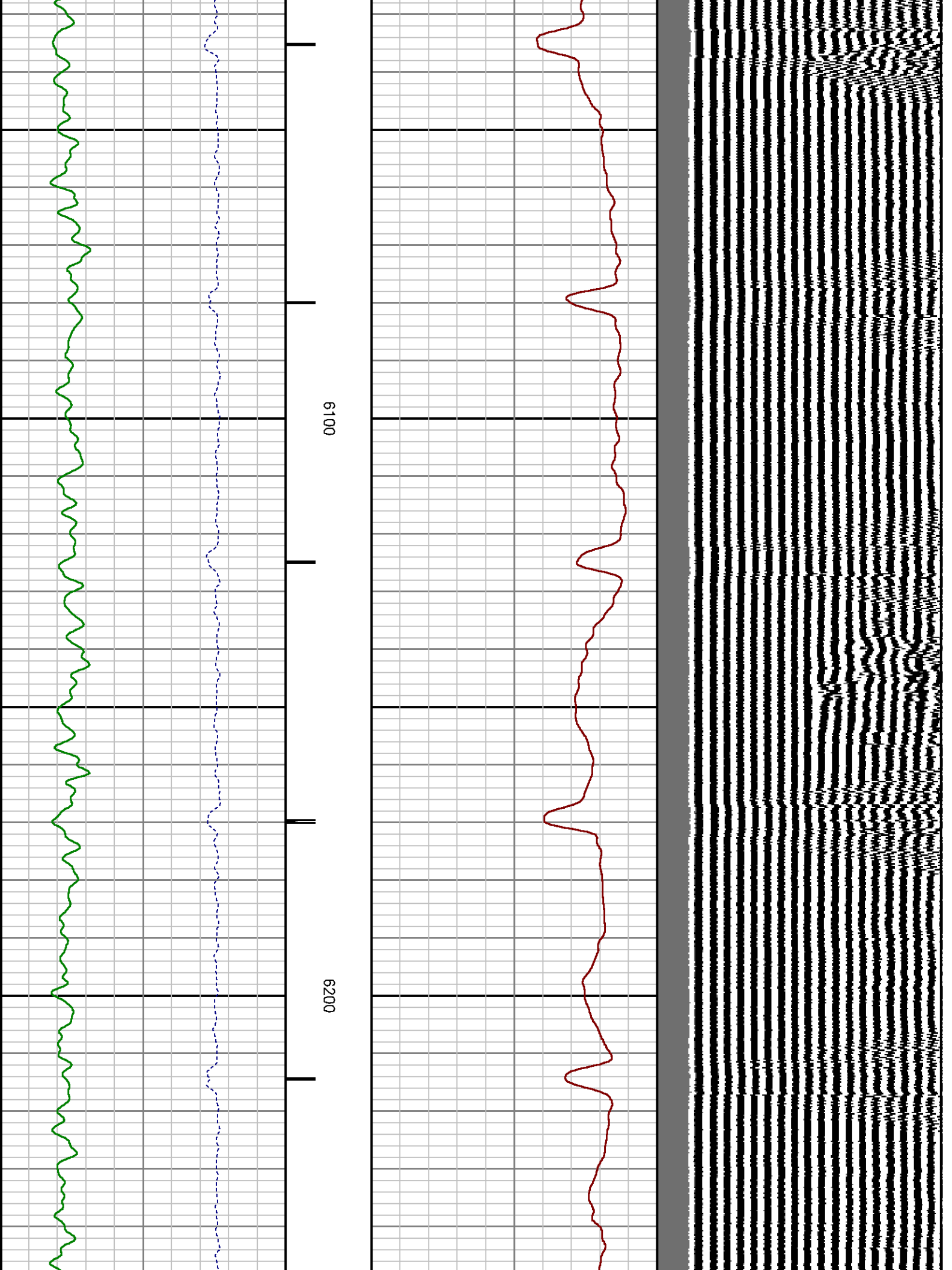


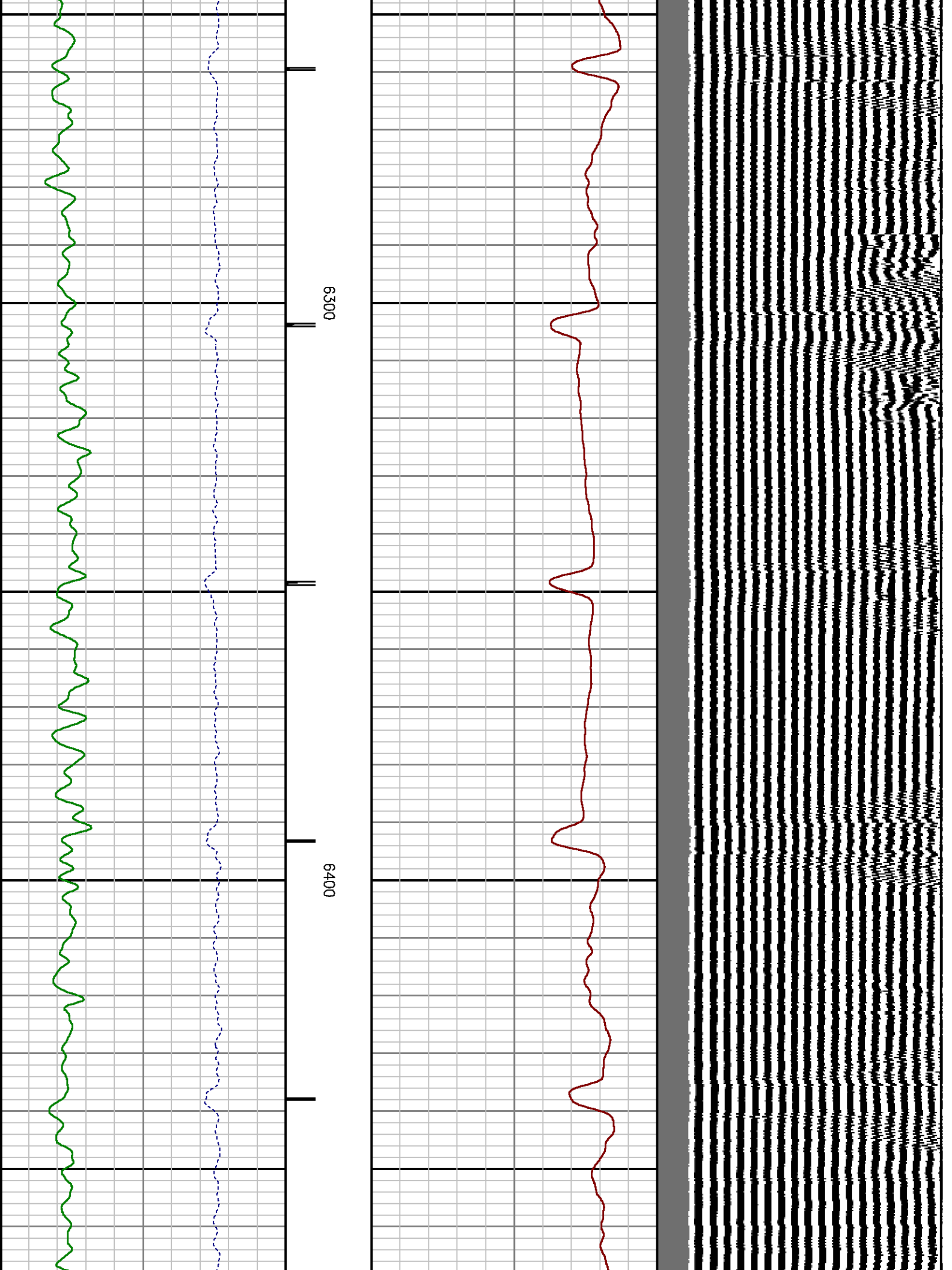


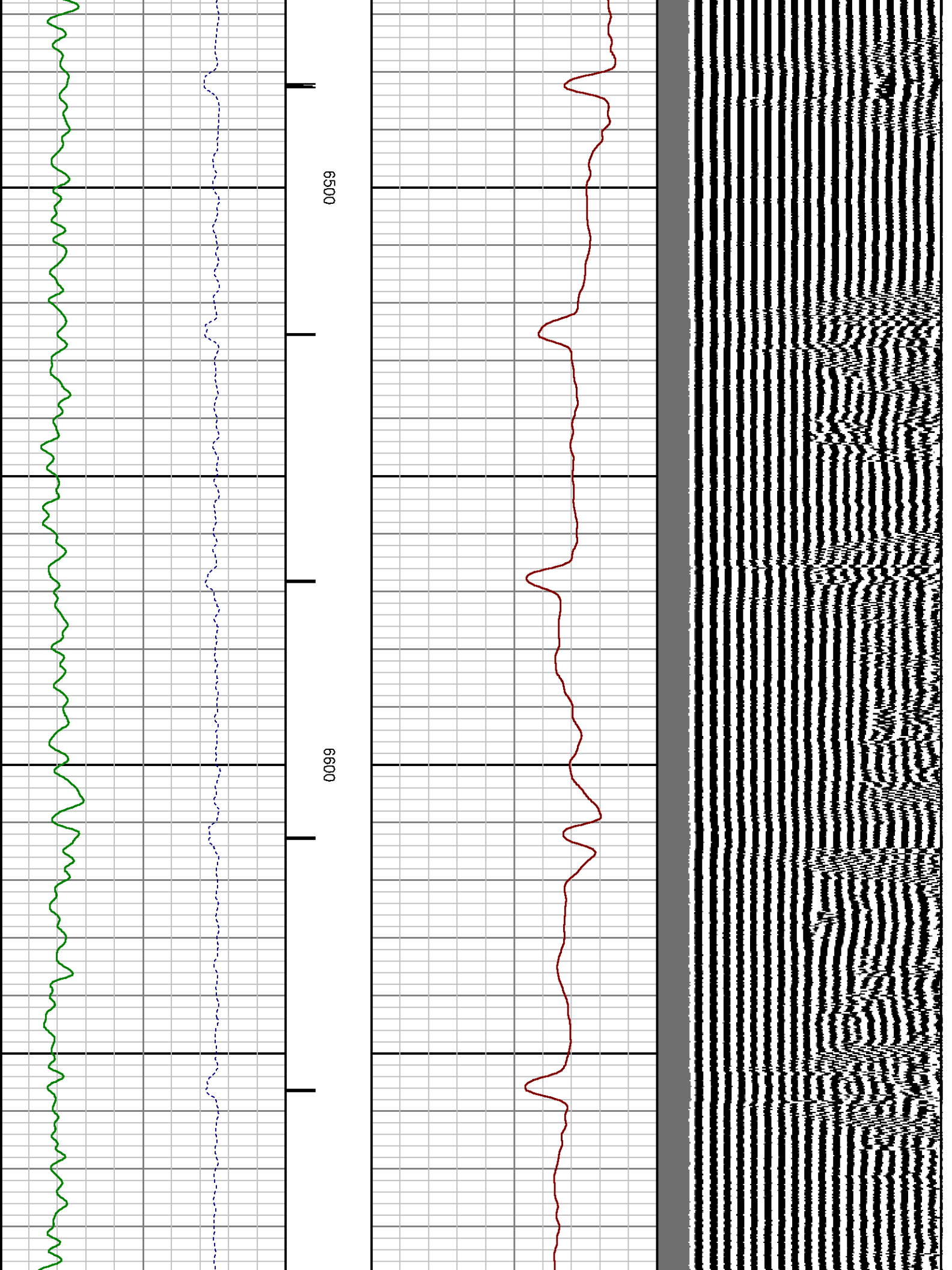


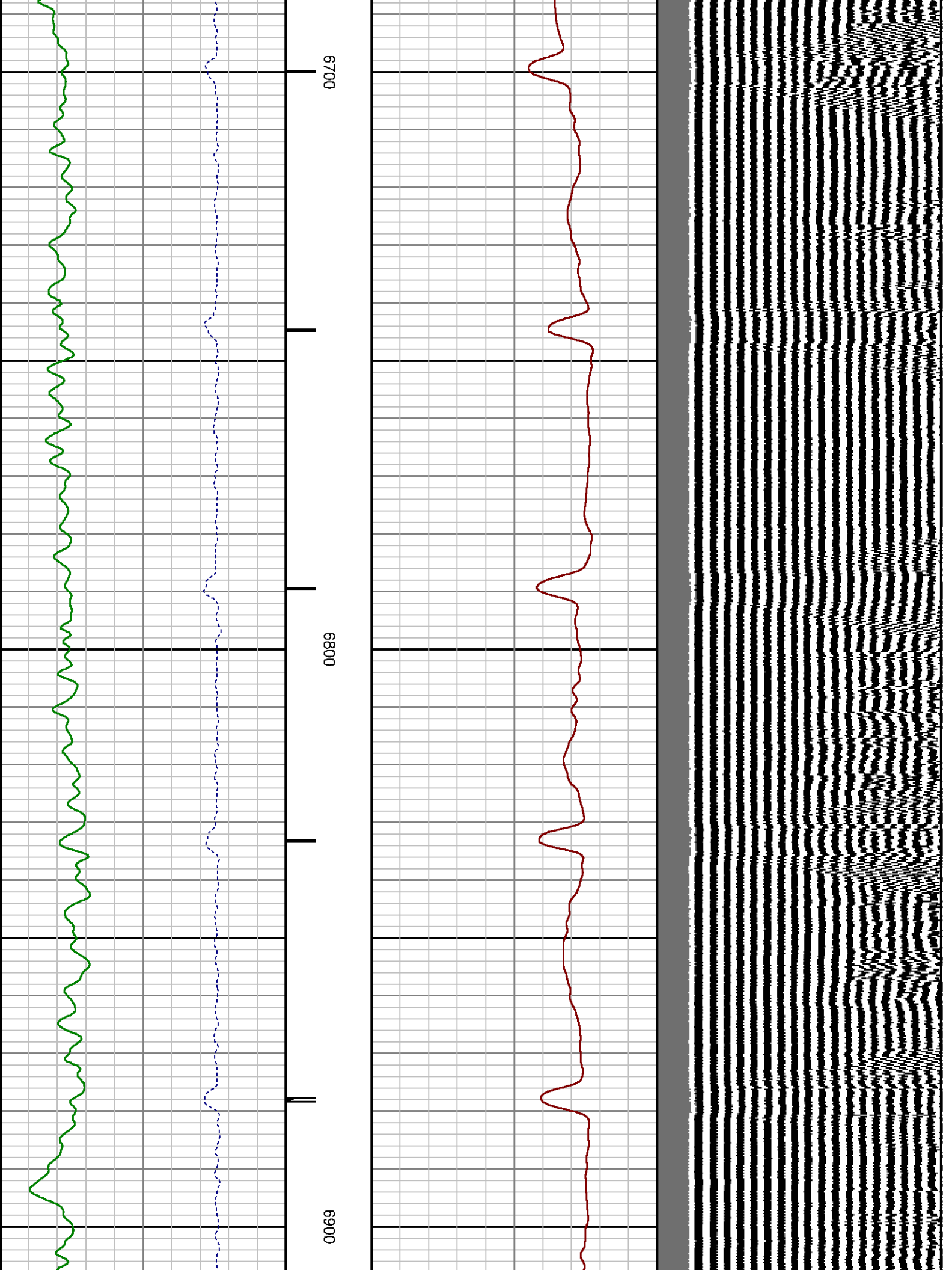


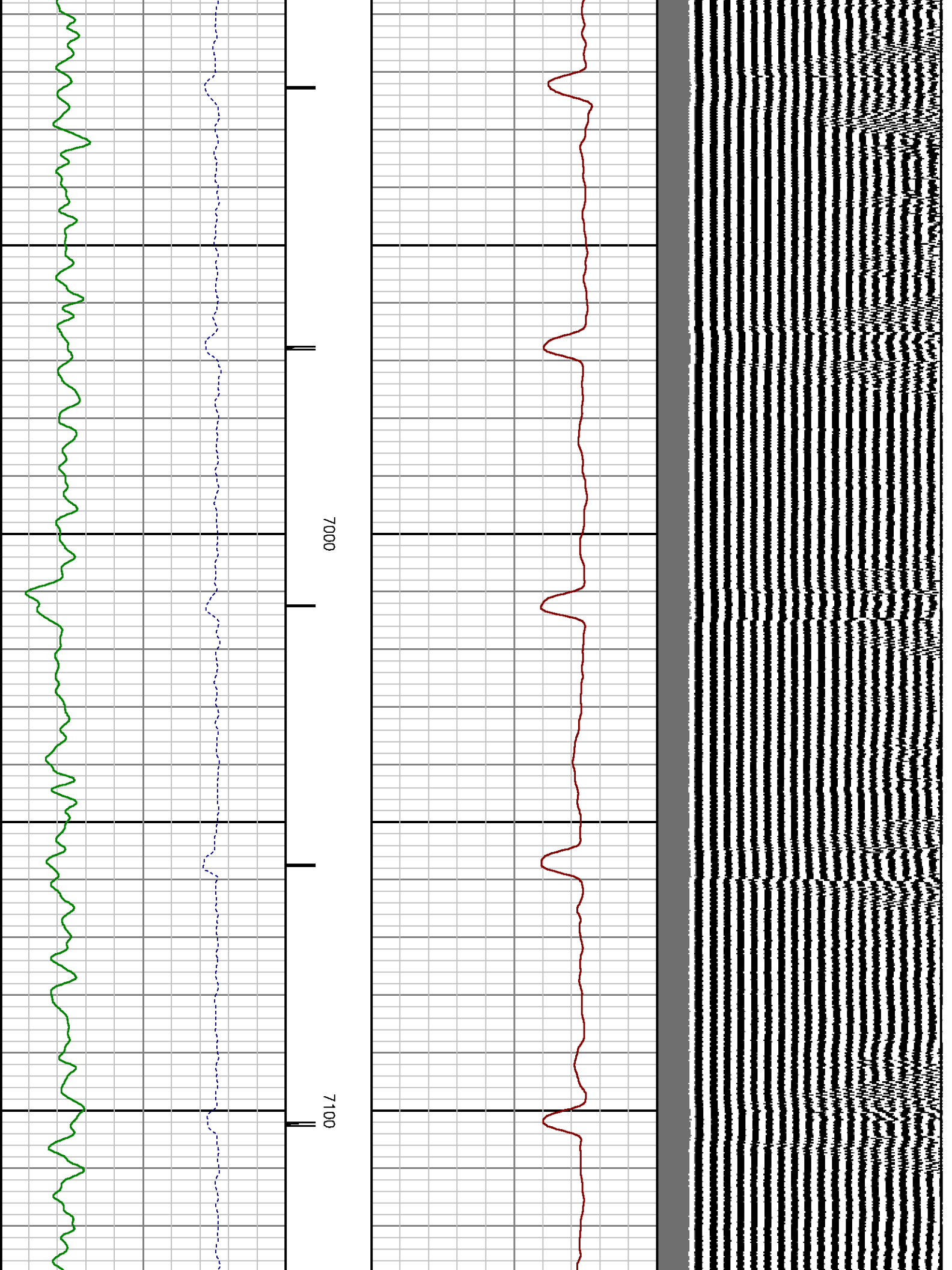


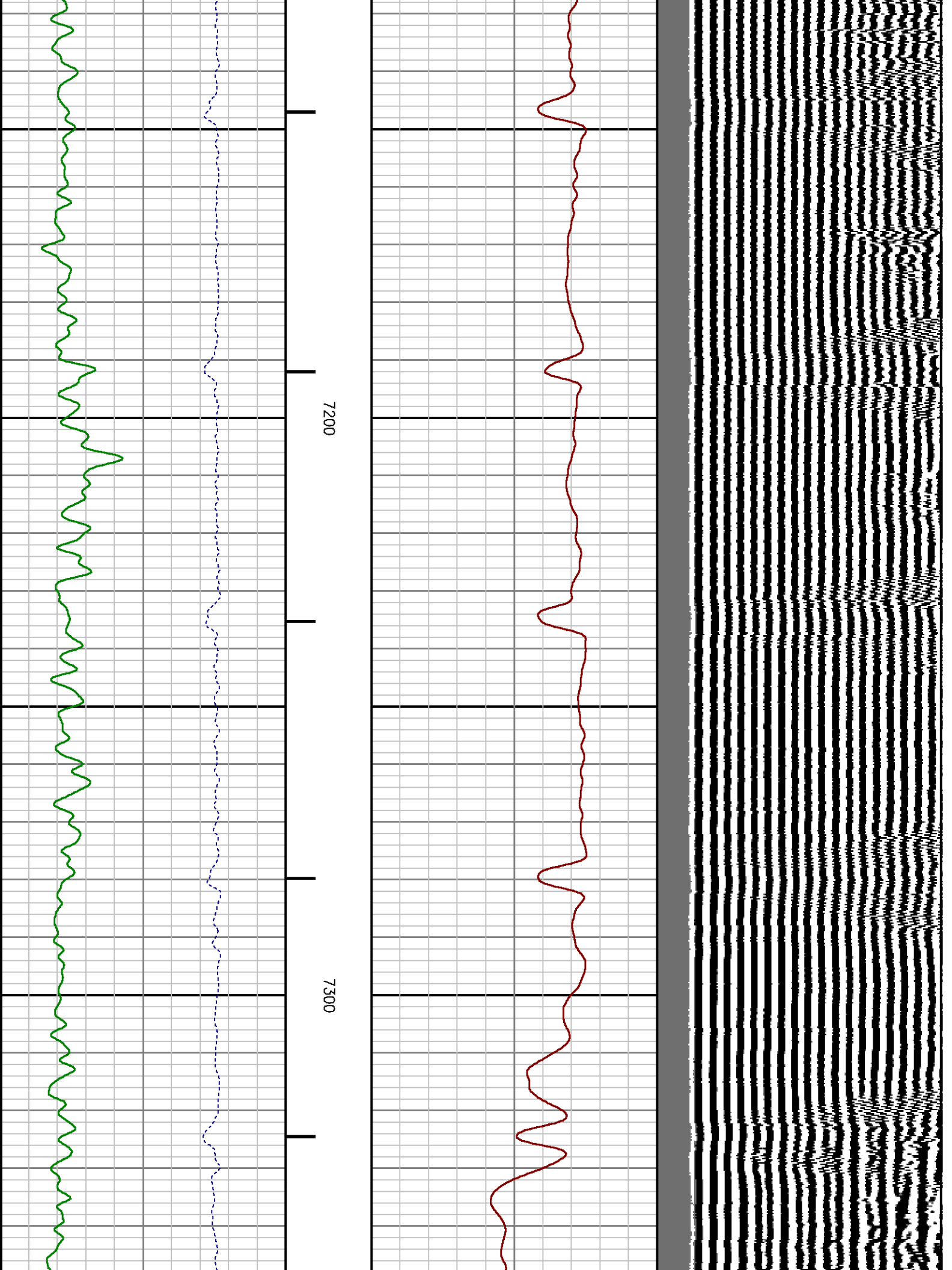


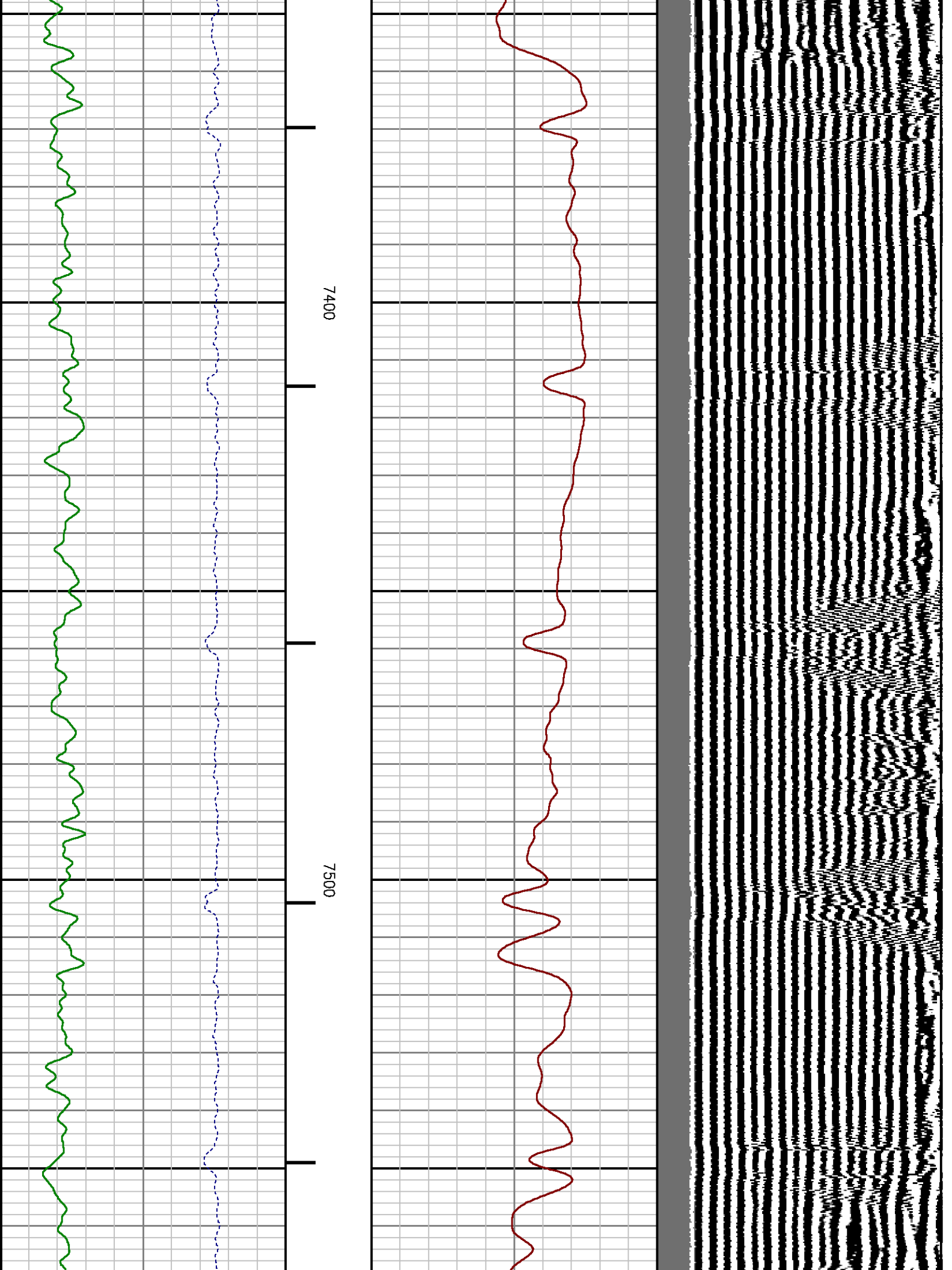


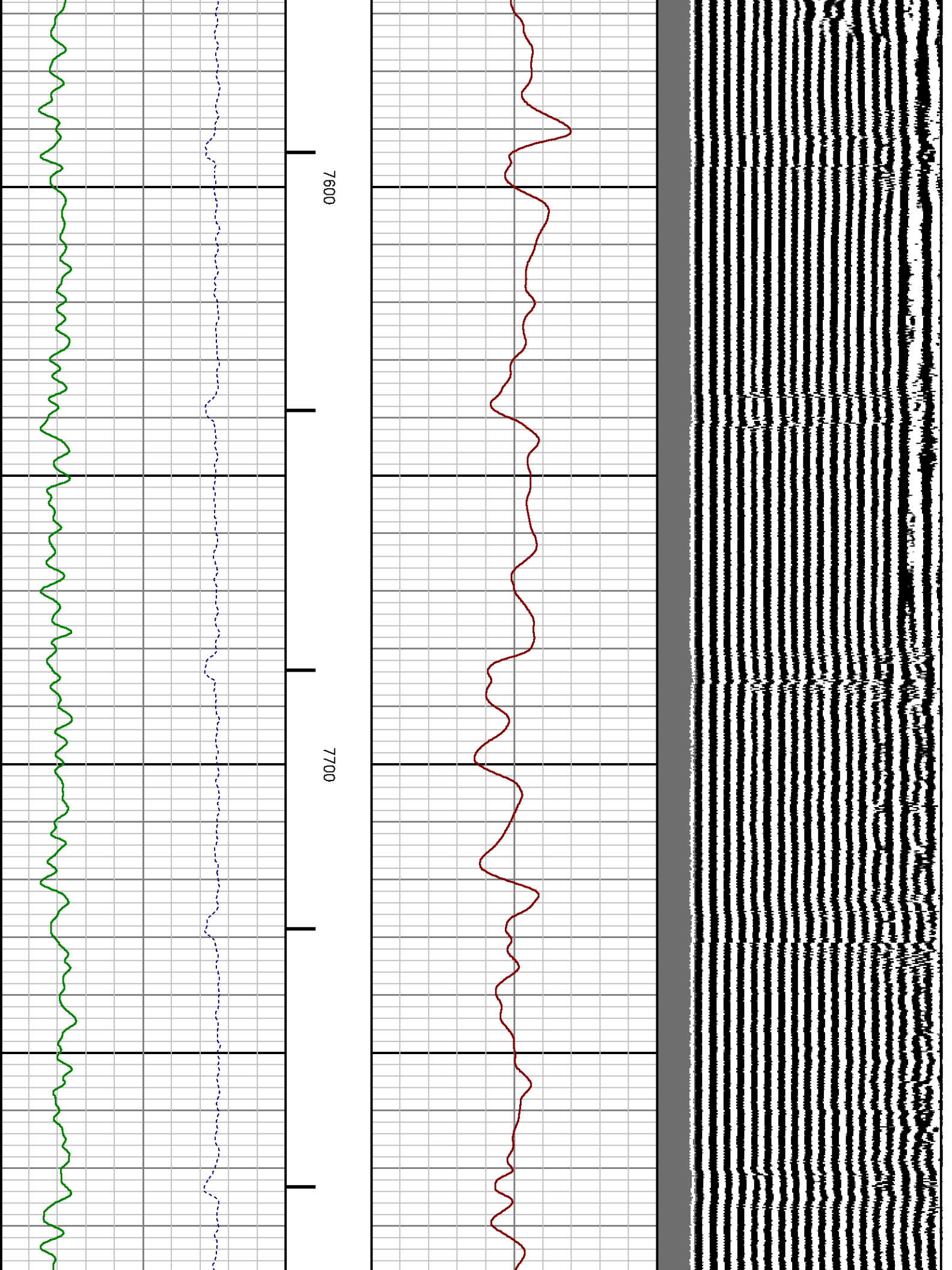


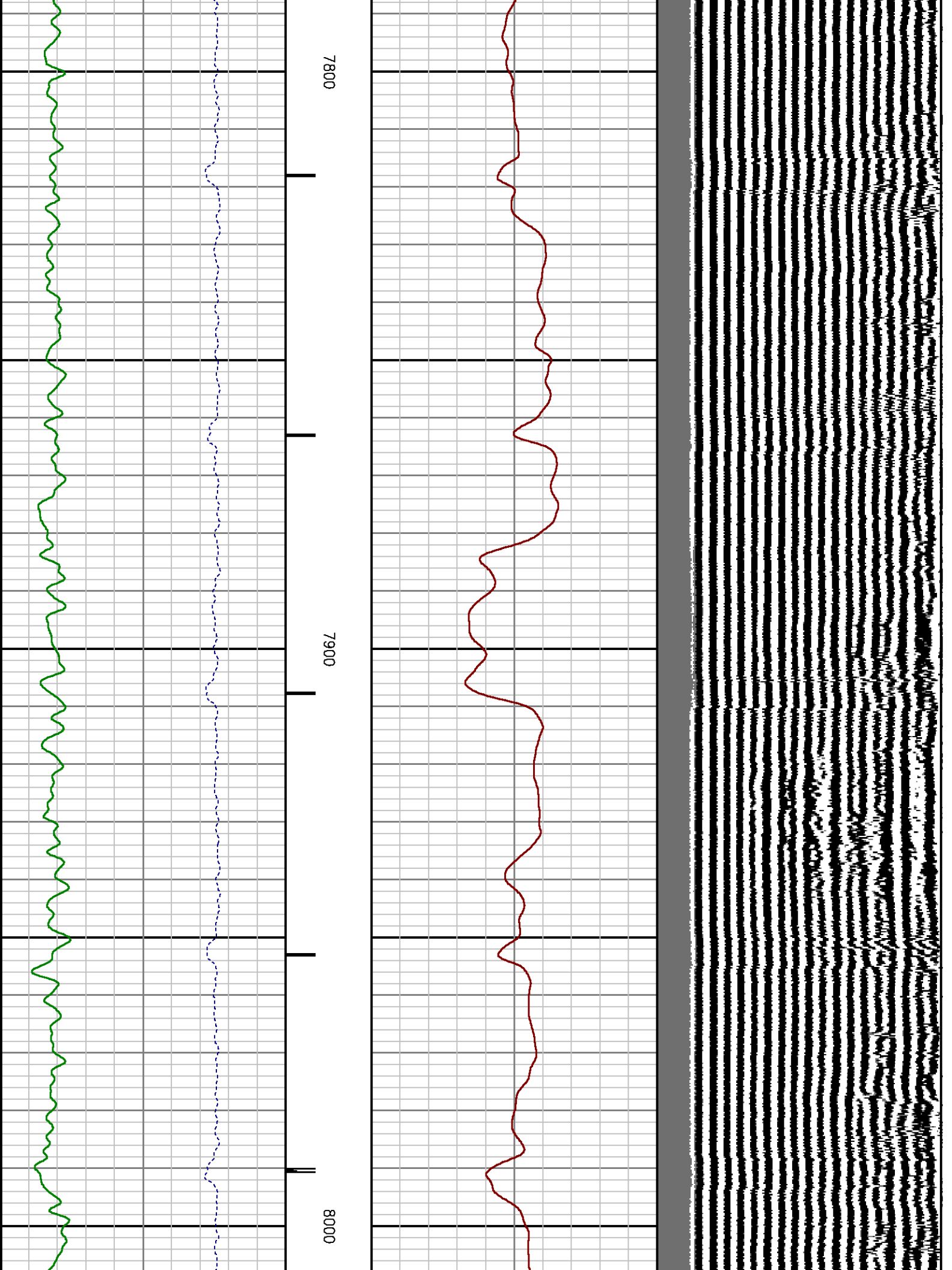


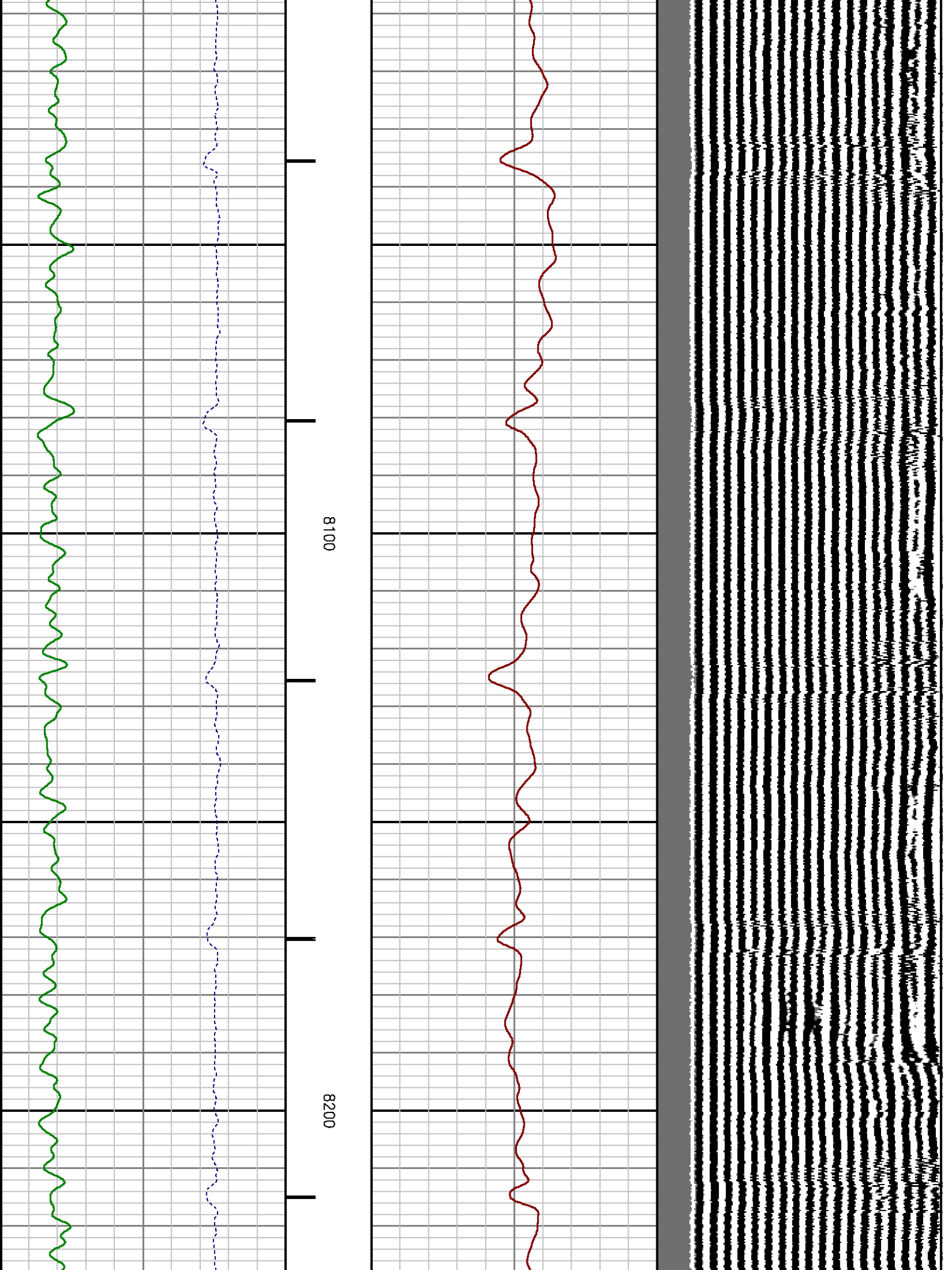


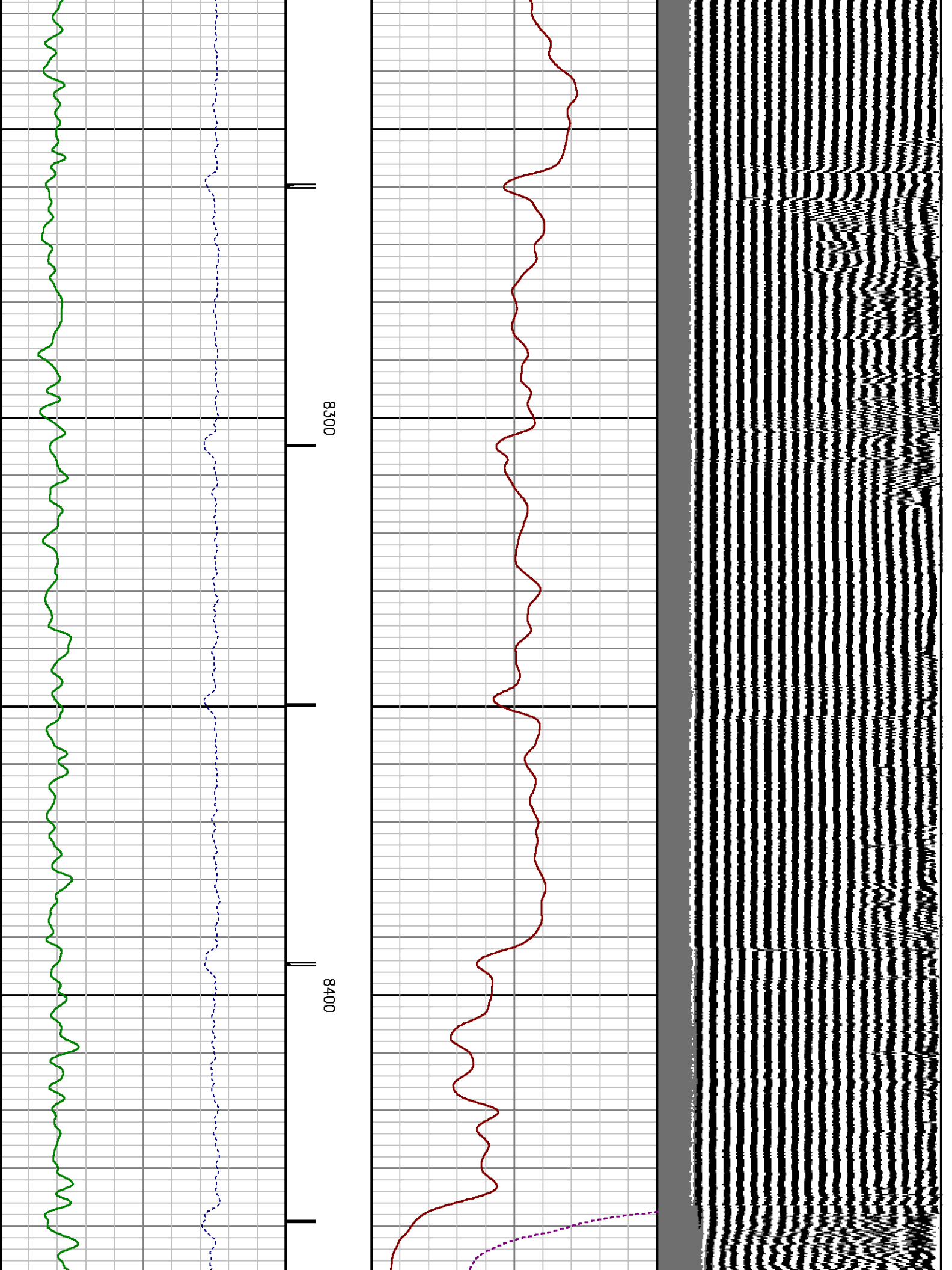


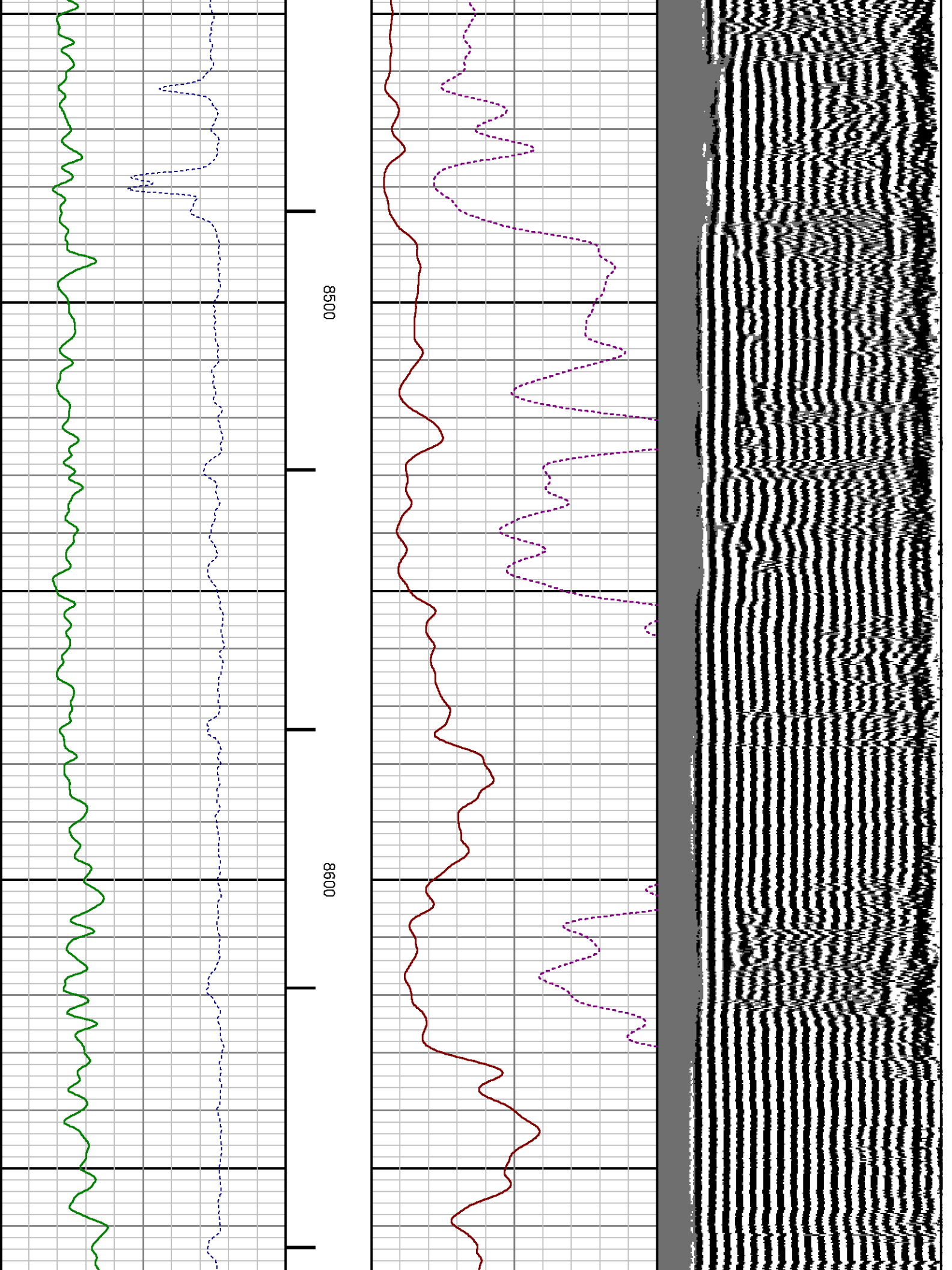


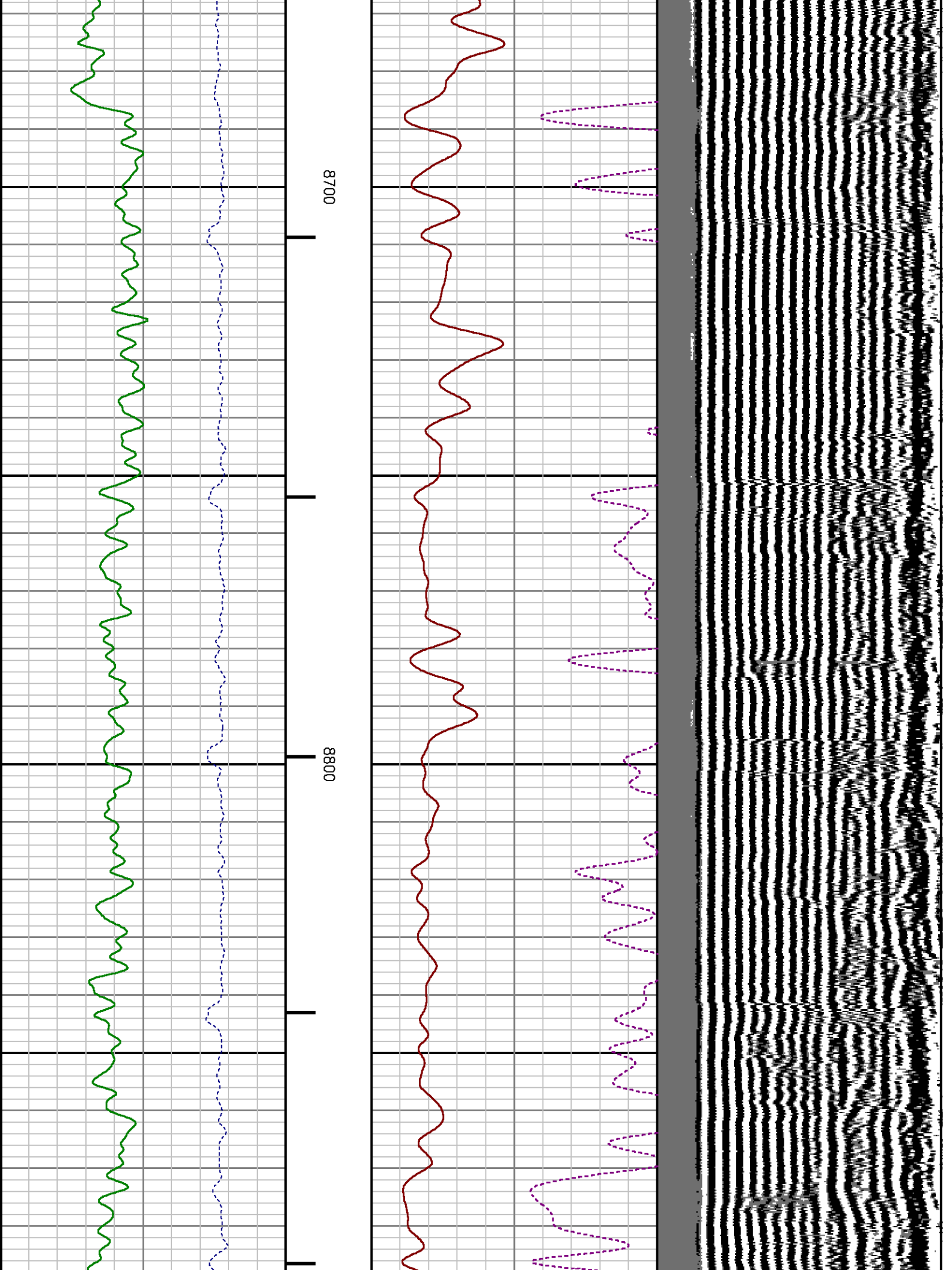


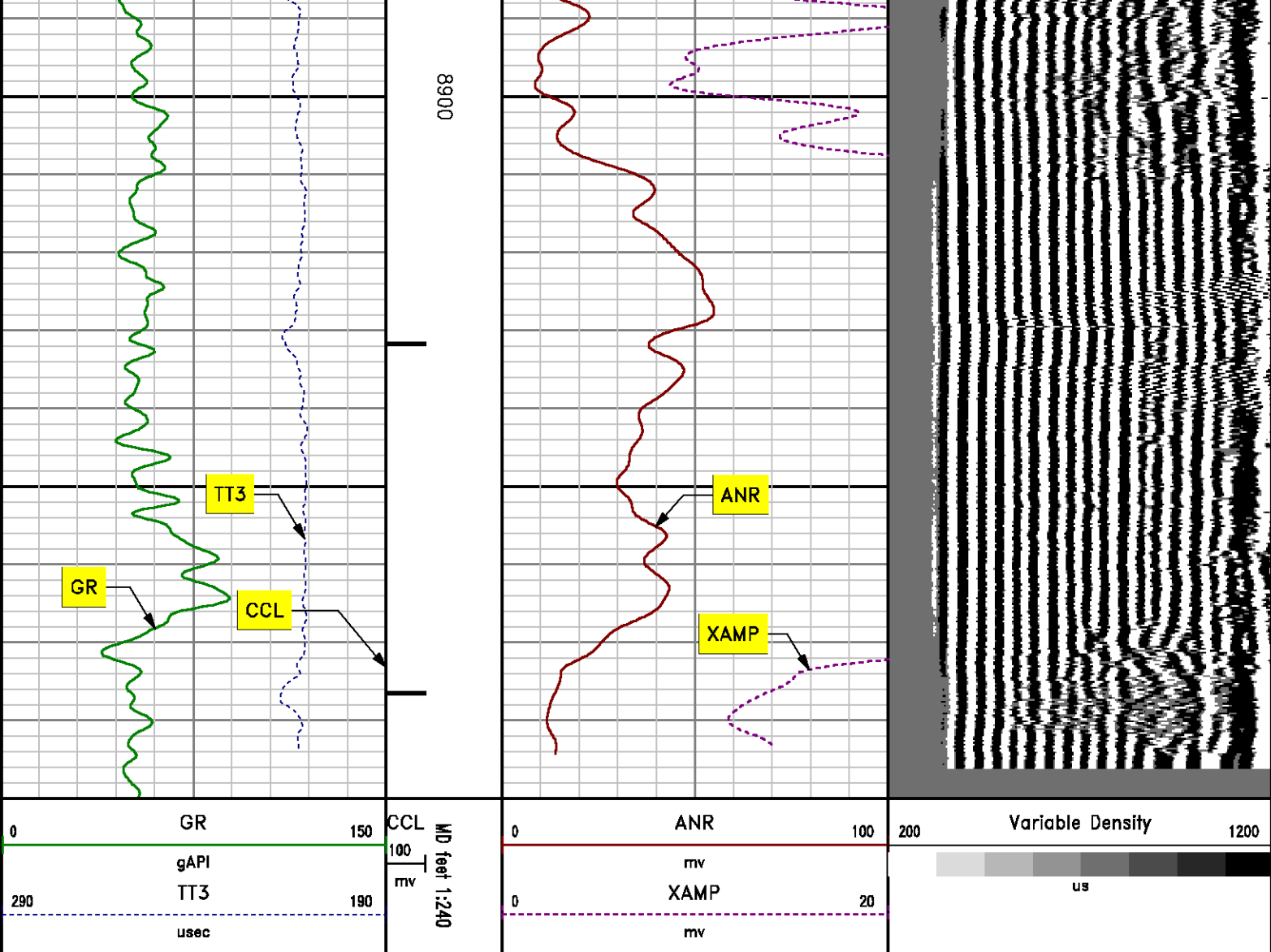












## *MAIN LOG SECONDARY PRESENTATION*

### *0 PSI*

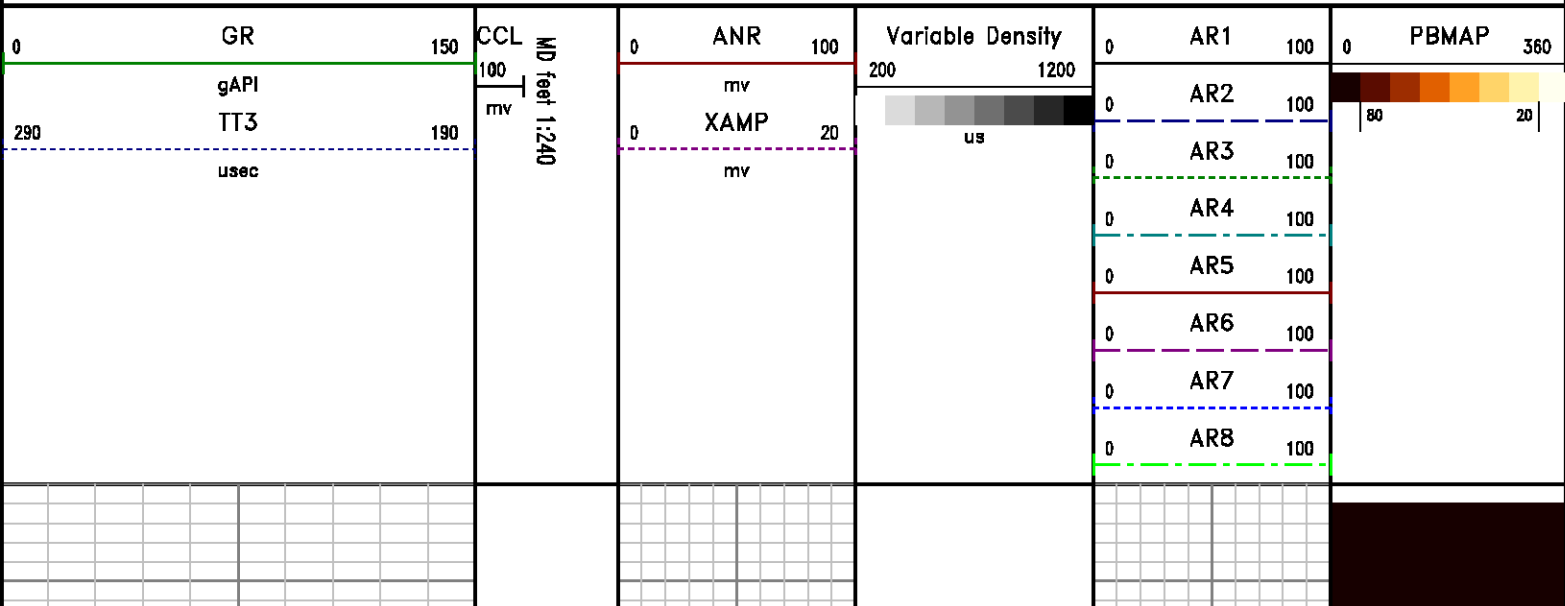
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	320.460	usec	40.124	9000.000
RAL	Amp Gate Start Near	211.080	usec	40.124	9000.000
RAL	Amp Gate Start Radial	211.080	usec	40.124	9000.000
RAL	Amp Gate Width Far	25.000	usec	40.124	9000.000
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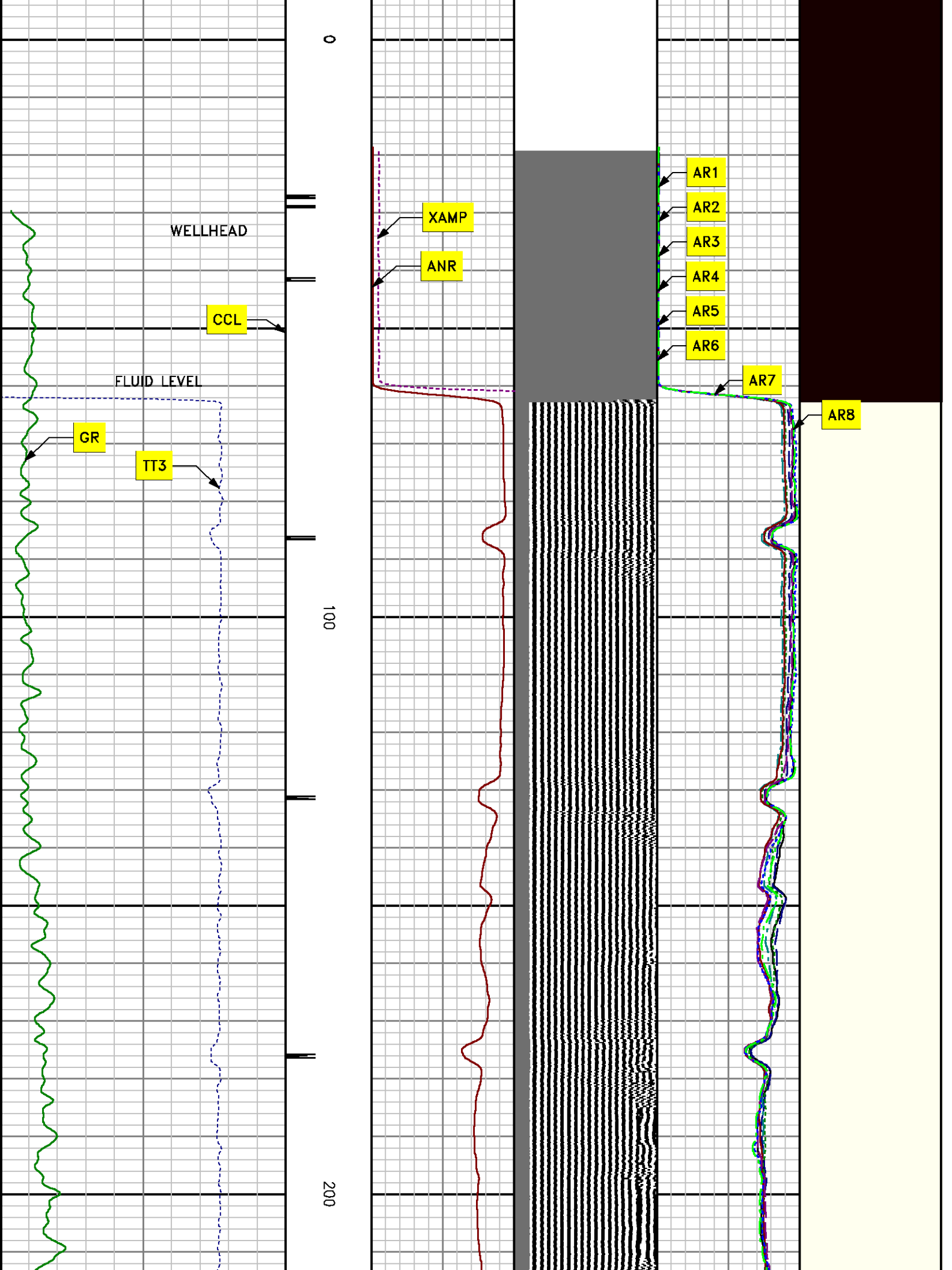
RAL	Amp Gate Width Radial	25.000	usec	40.124	9000.000
RAL	casing od	5.500	inches	40.124	9000.000
RAL	casing wt	23.000	lbm/ft	40.124	9000.000
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RAL	FB Start Radial	186.080	usec	40.124	9000.000
RAL	FB Thresh Far	10.000	mv	40.124	9000.000
RAL	FB Thresh Near	4.000	mv	40.124	9000.000
RAL	FB Thresh Radial	4.000	mv	40.124	9000.000
RAL	Fluid Travel Time	200.000	usec/ft	40.124	8999.999

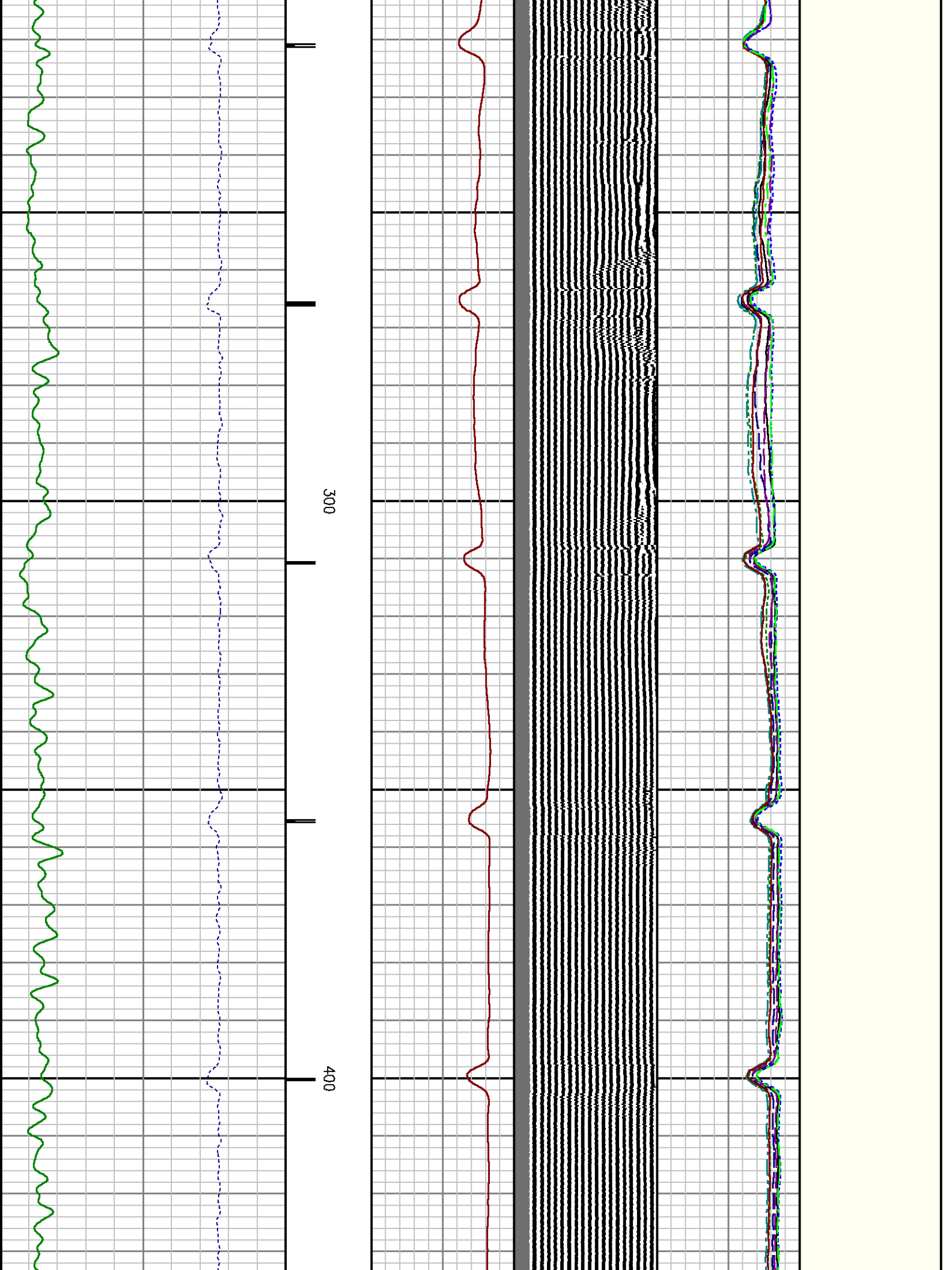
### DEPTH OFFSETS (for Acquired Curves)

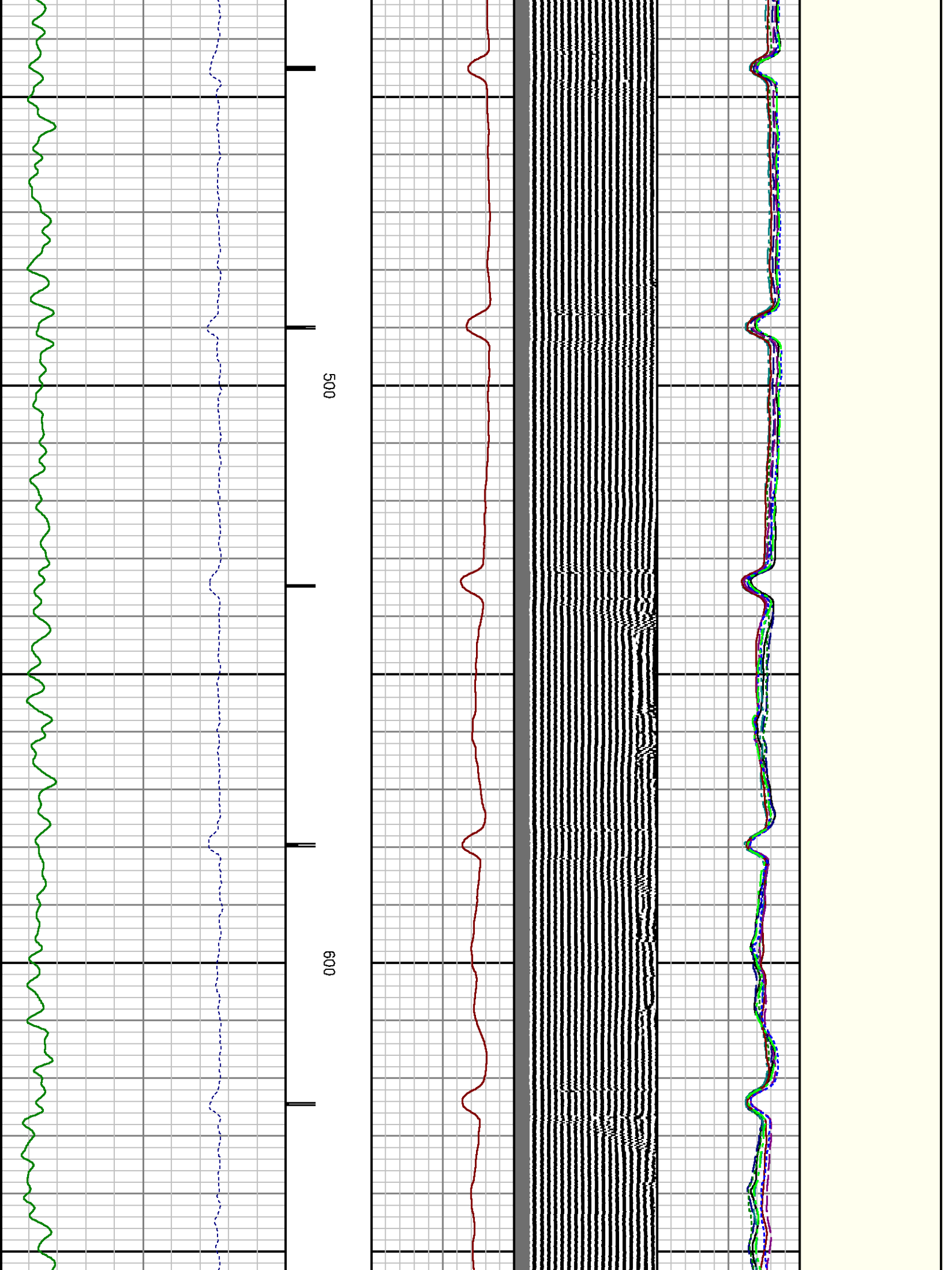
SERIES	DEPTH OFFSET	ACQUIRED CURVES															
		ACAL	ANR	AR1	AR2	AR3	AR4	AR5	AR6								
1426XA	-16.750	AR7	AR8	CHV	FPR2	FPR3	FPR5	TT3	TTR1	TTR2	TTR3	TTR4	TTR5	TTR6	TTR7	TTR8	XAMP
		AFAR	SIG	TT5													
		CCL															
		GR															
2459XA	-11.340																
2459XA	-9.490																
2459XA	-4.090																

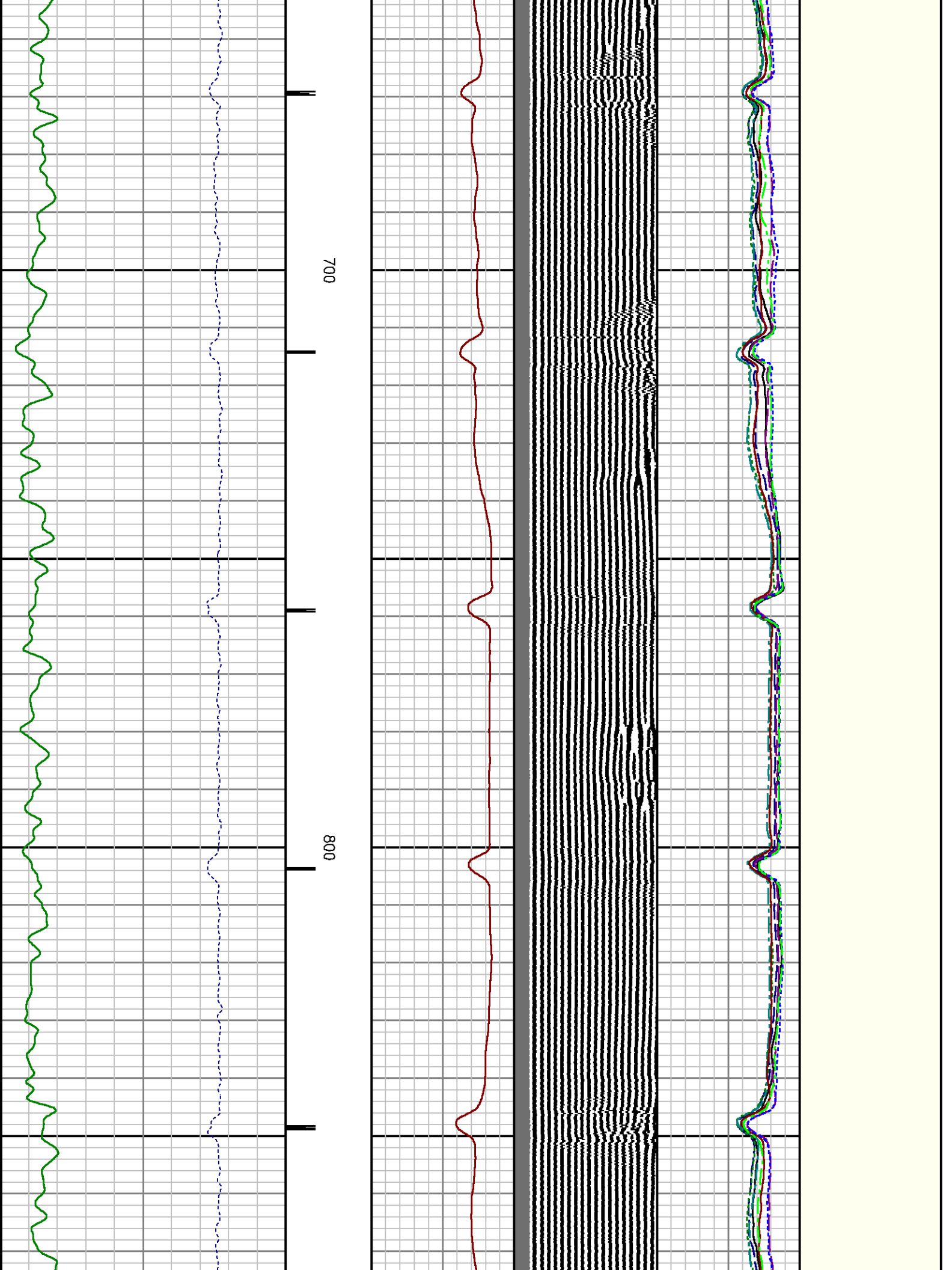
Created by : RAL, v4.8.008  
 Plotted by : PlotMgr, v5.4.504  
 Company : WPX ENERGY  
 Well : BOSELY SG 702-23-HN1  
 File Name : d:\well\data\cb1702\main.xtf  
 Mode : PlotMgr 5.4.504  
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 Created : 7/7/2013 9:46:10 AM

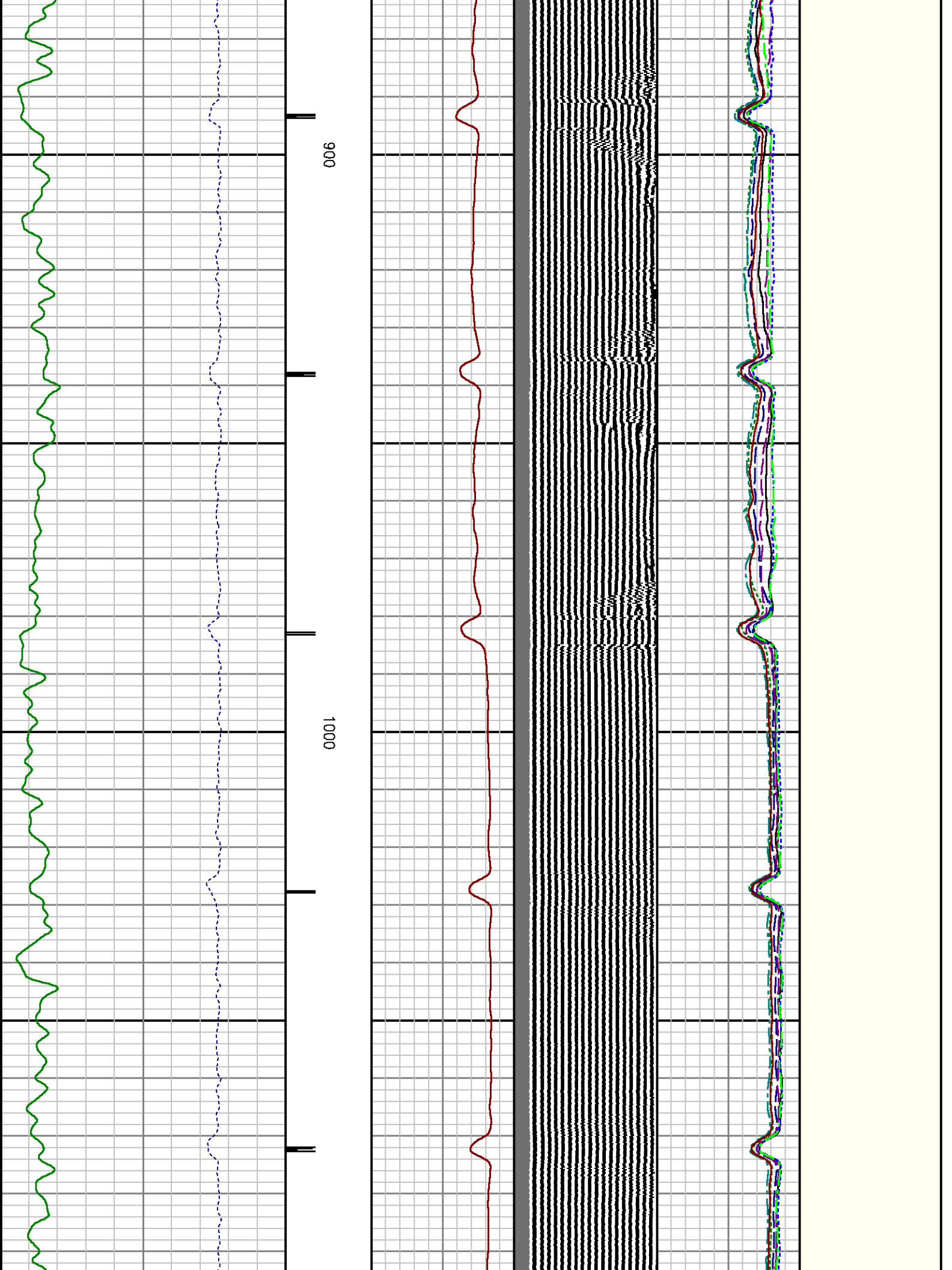


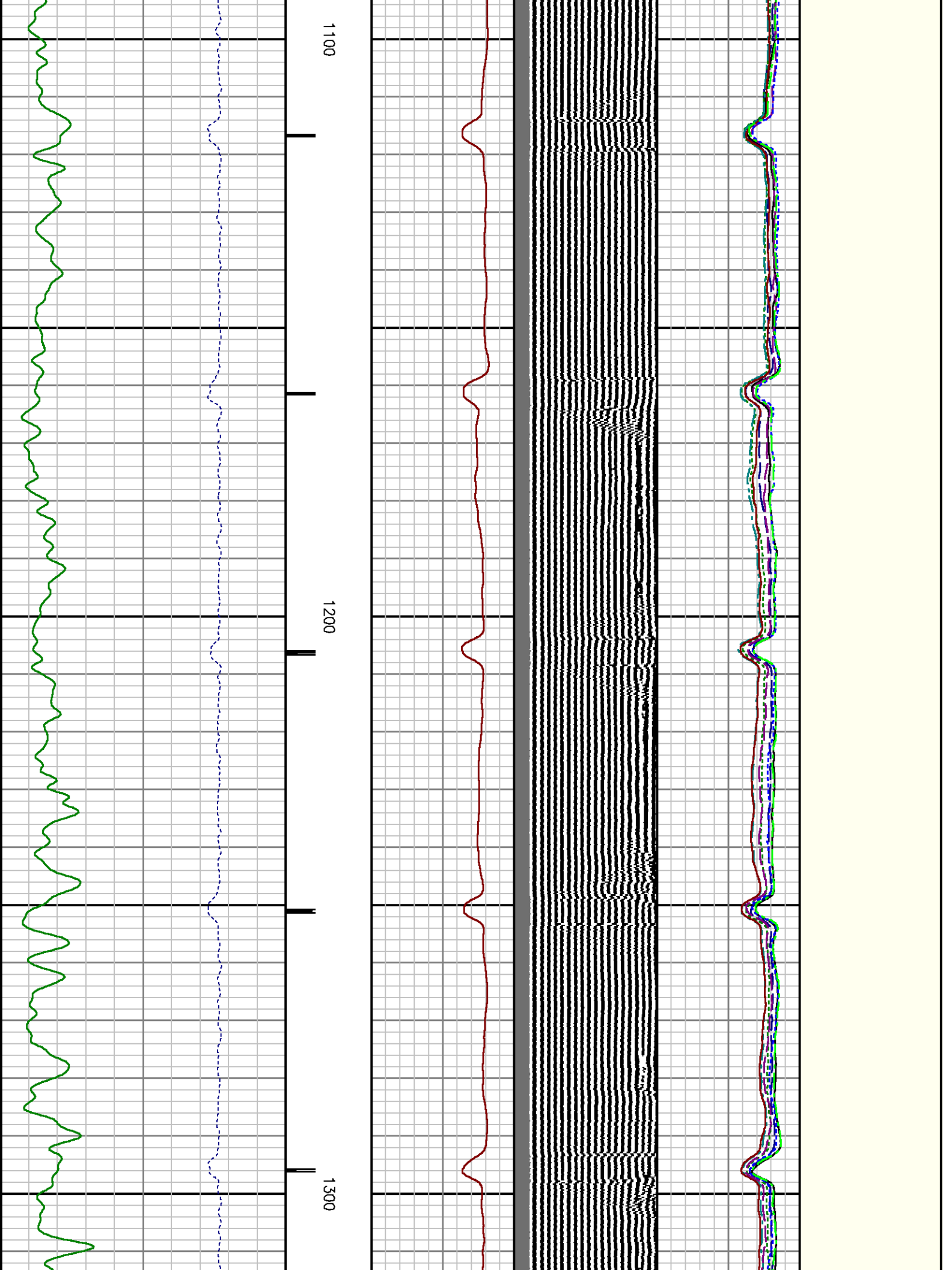


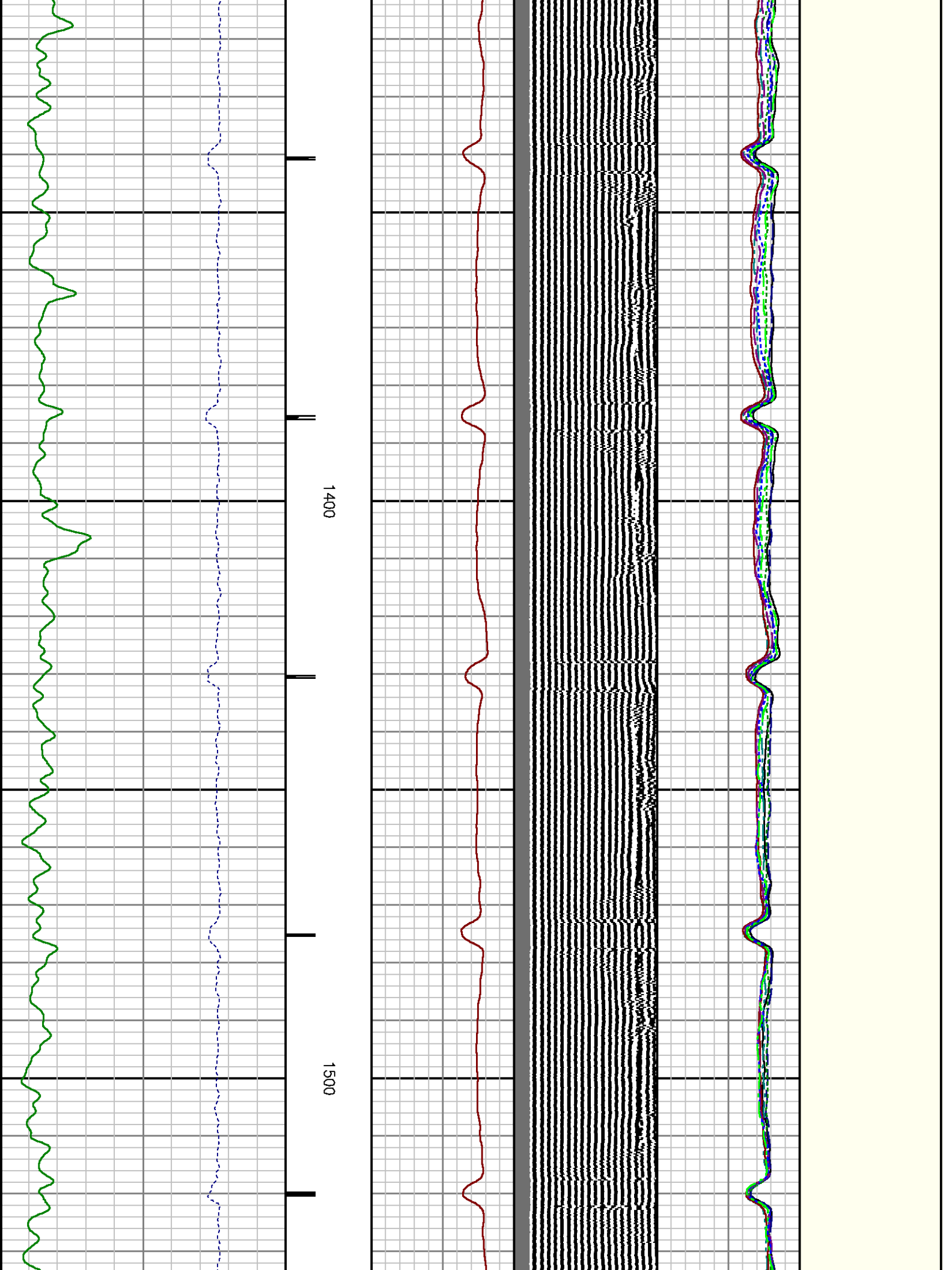


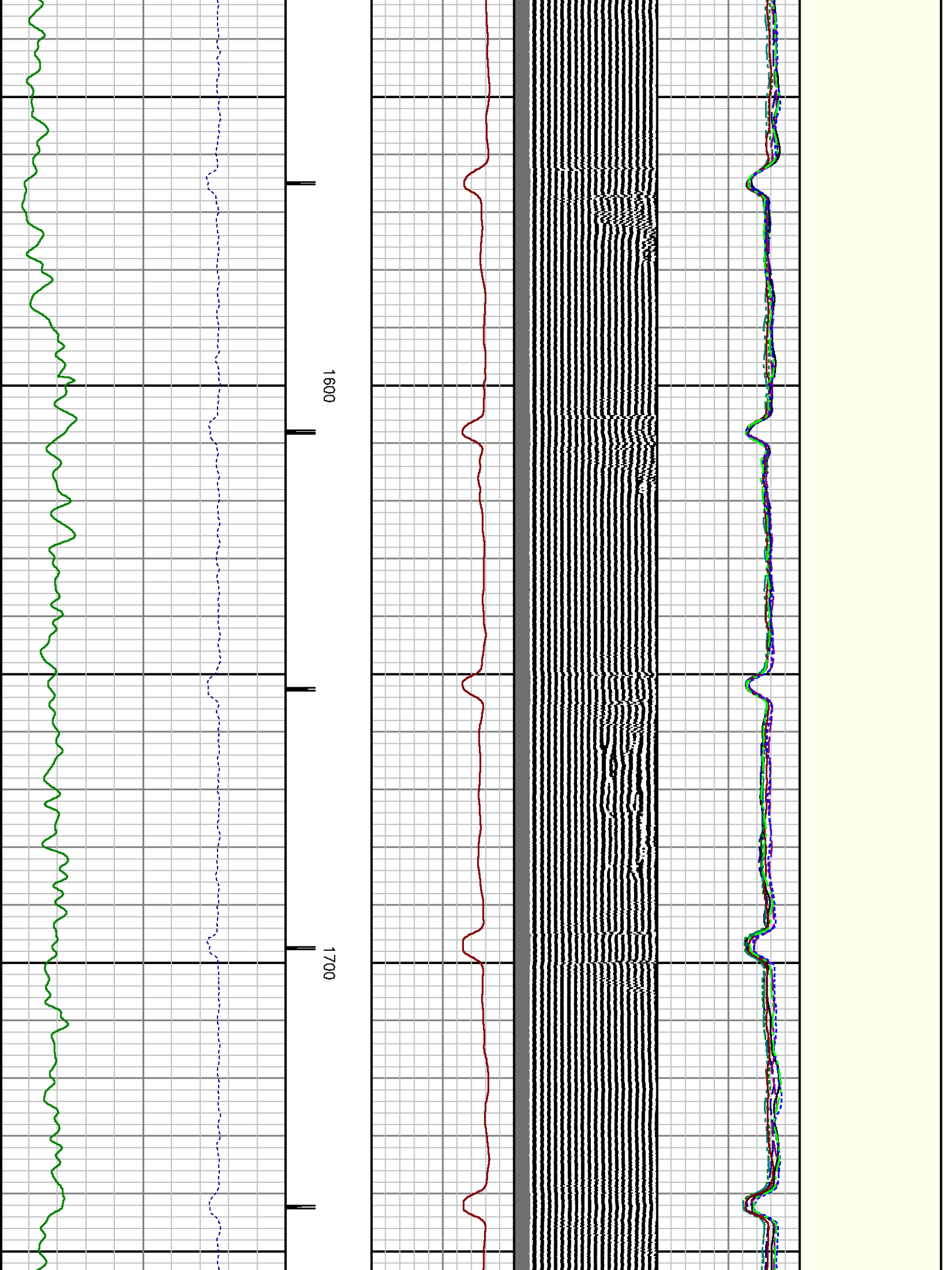


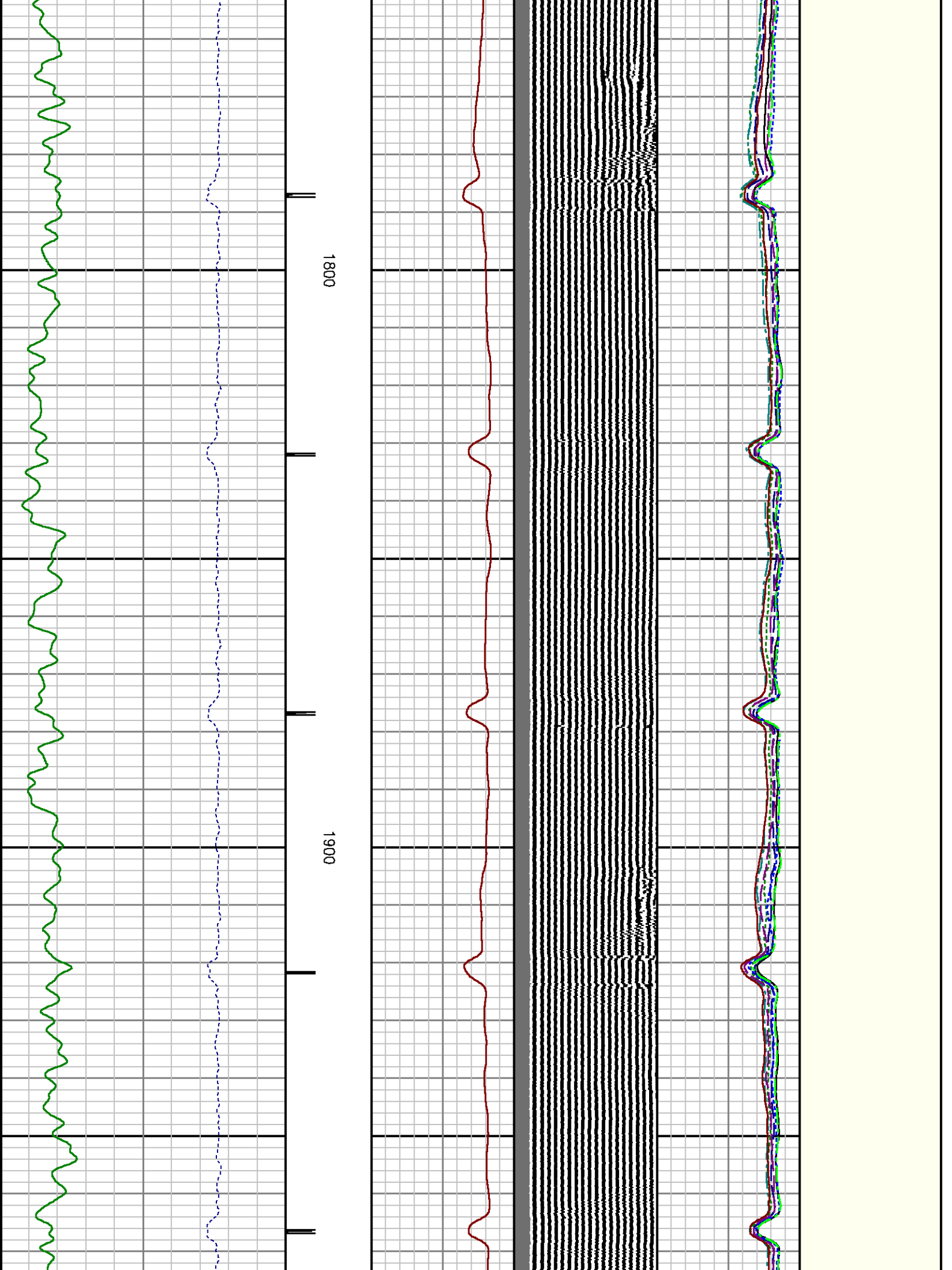


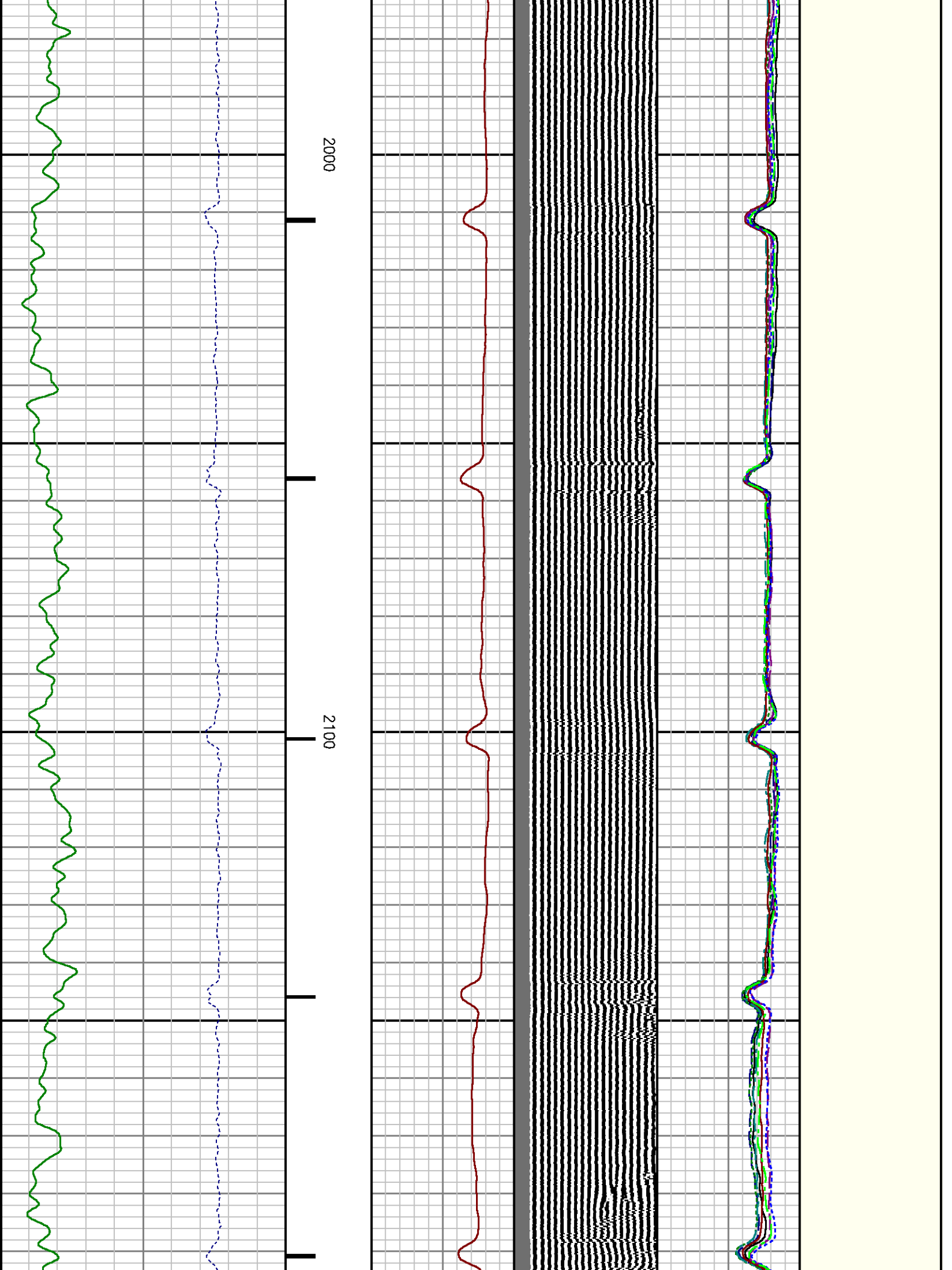


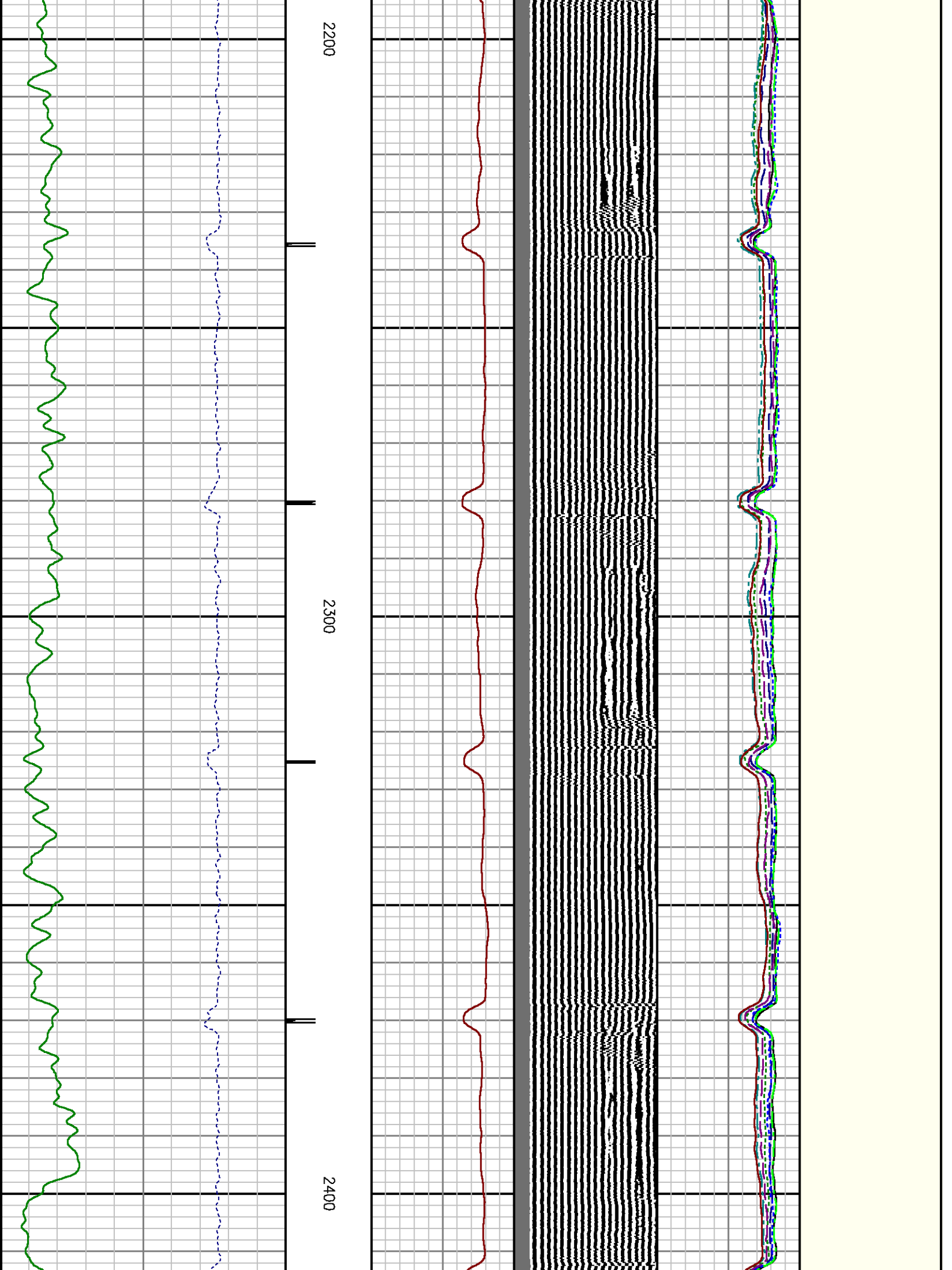


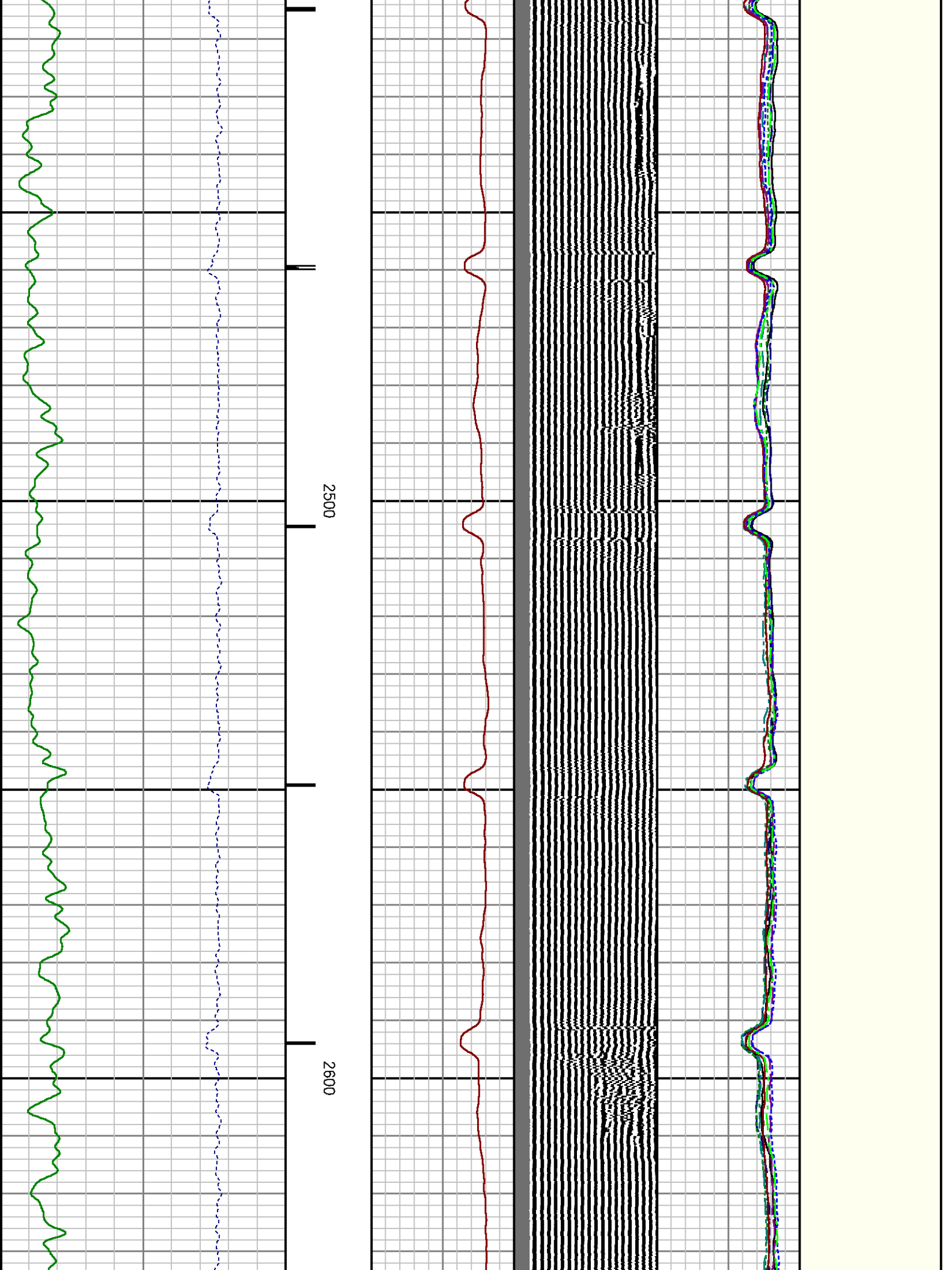


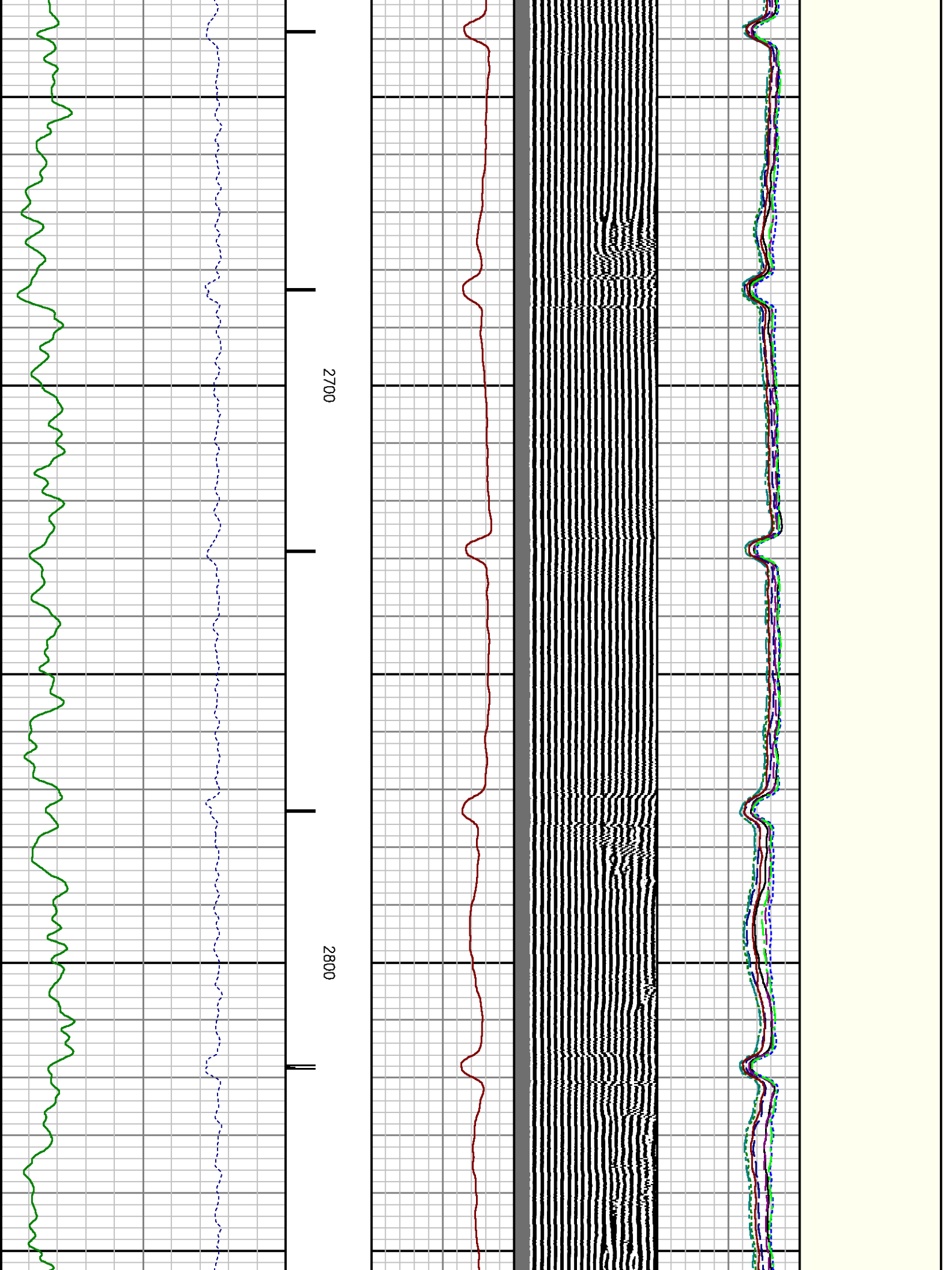


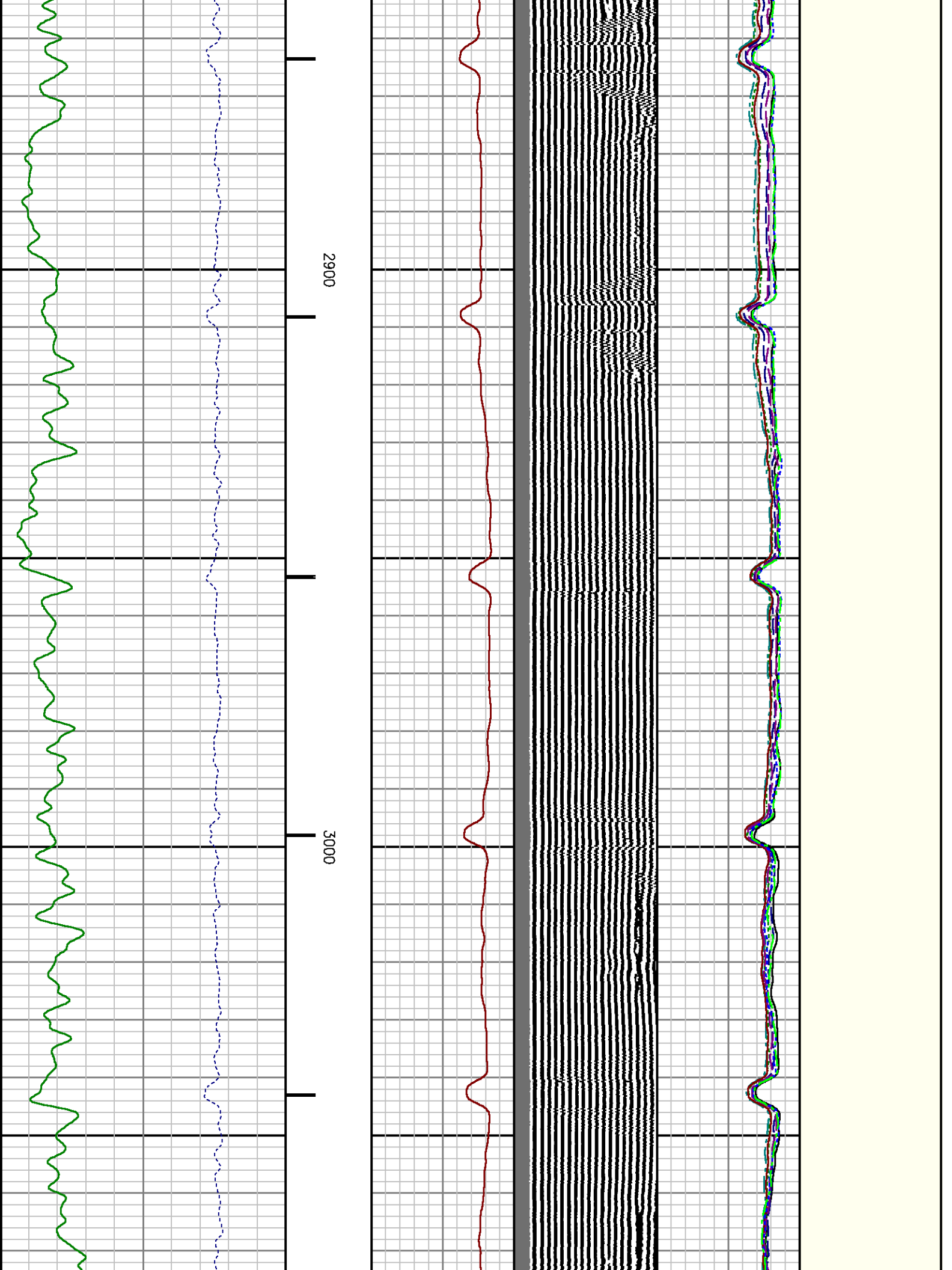


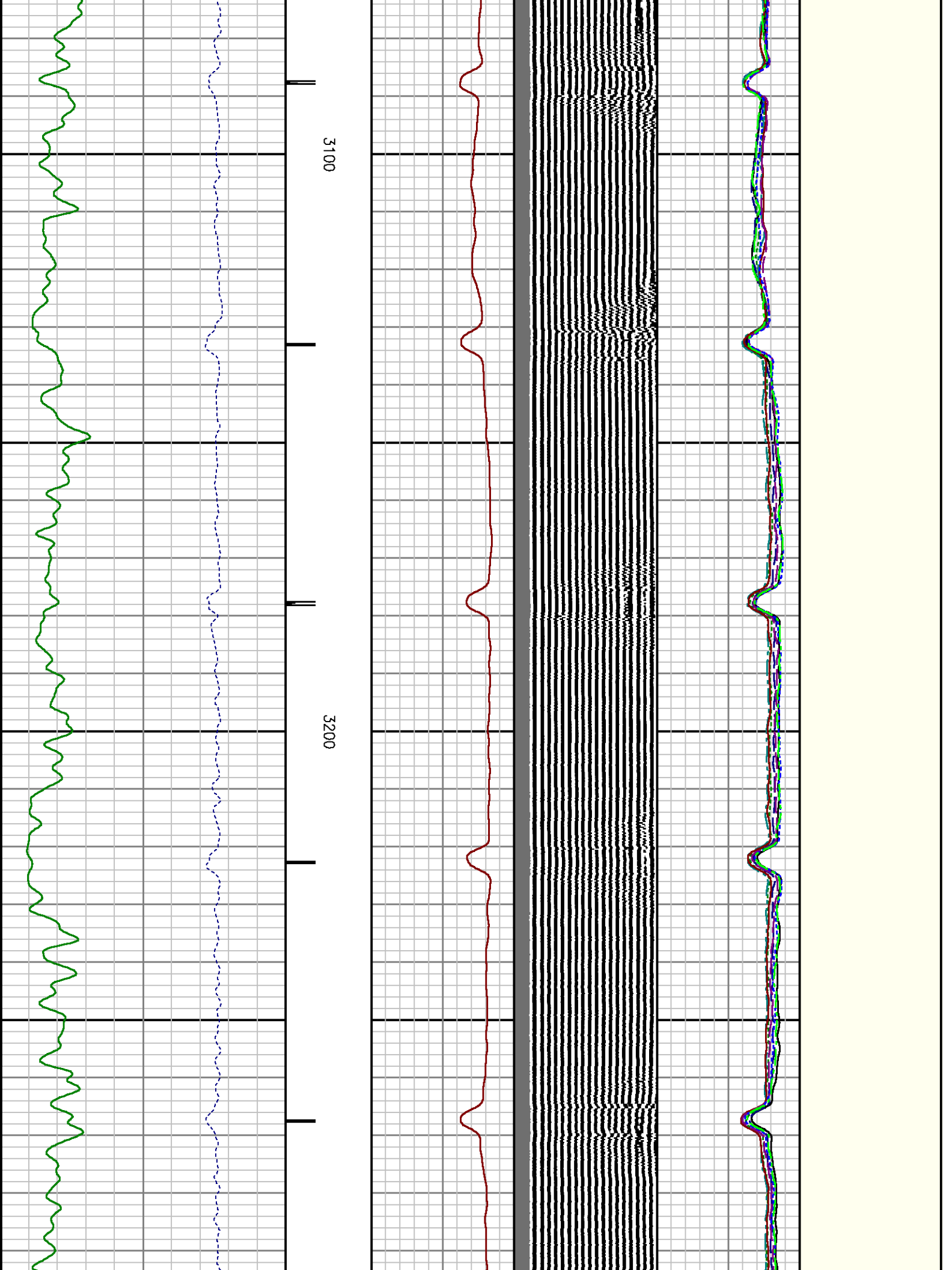


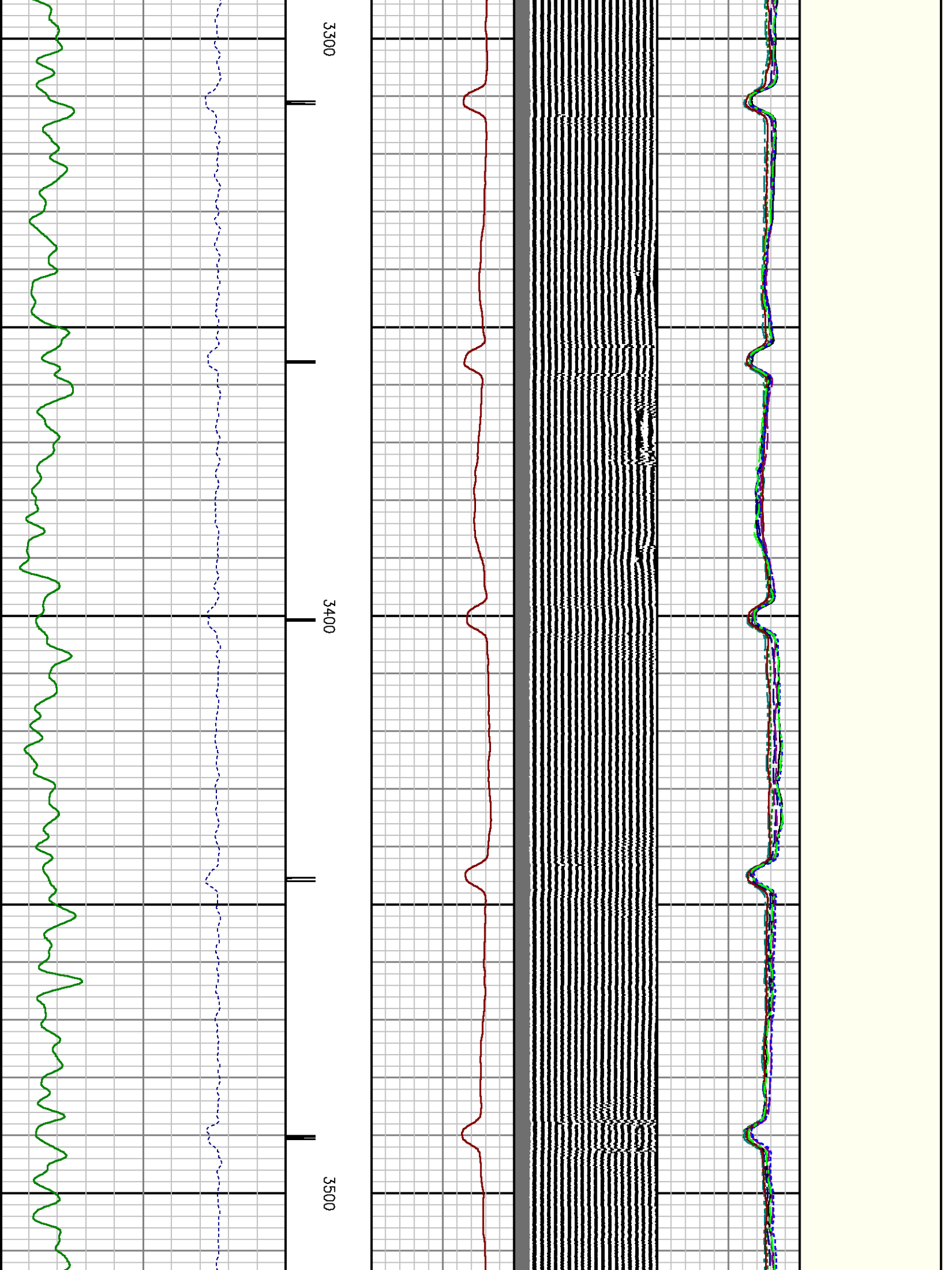


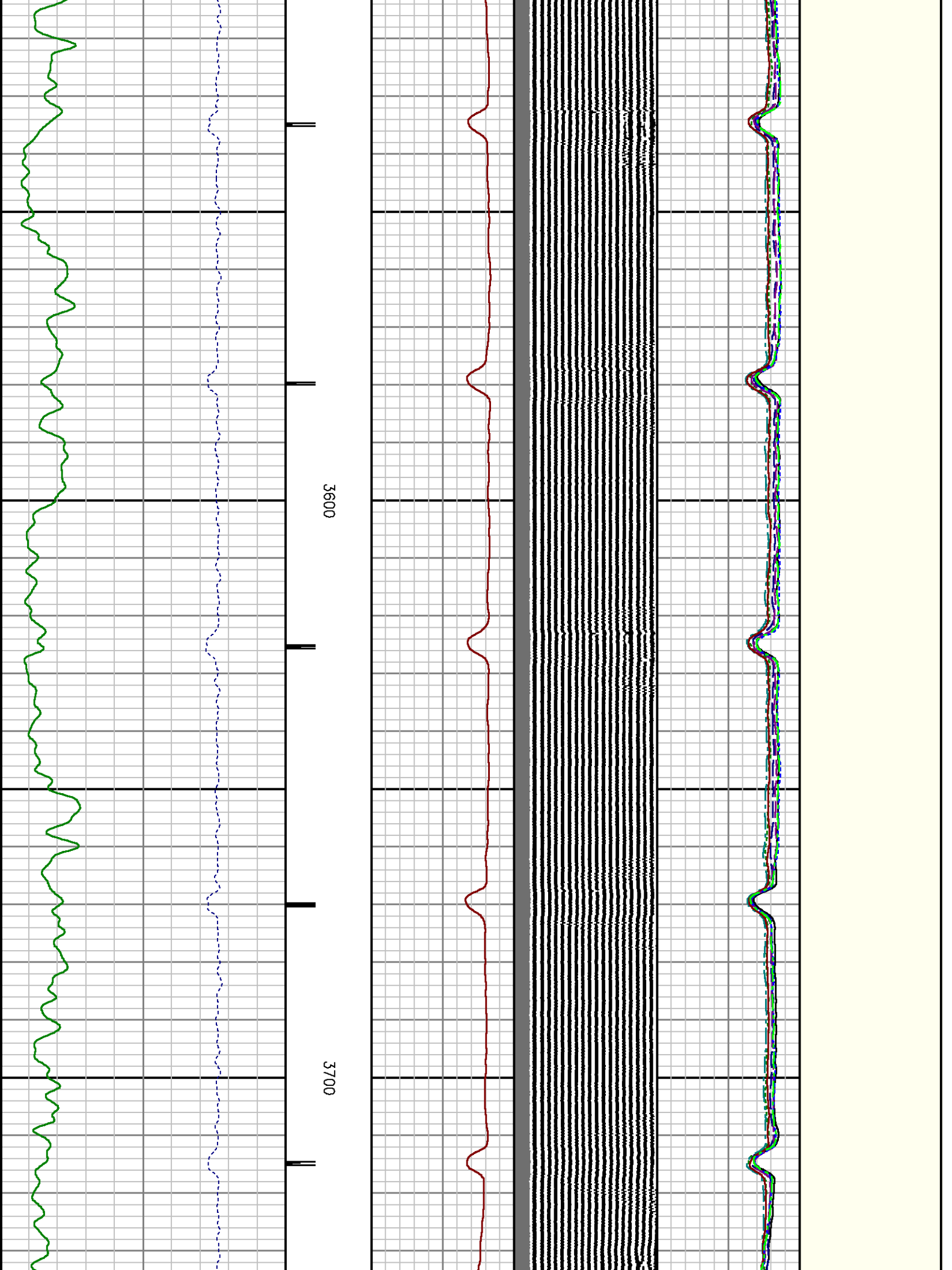


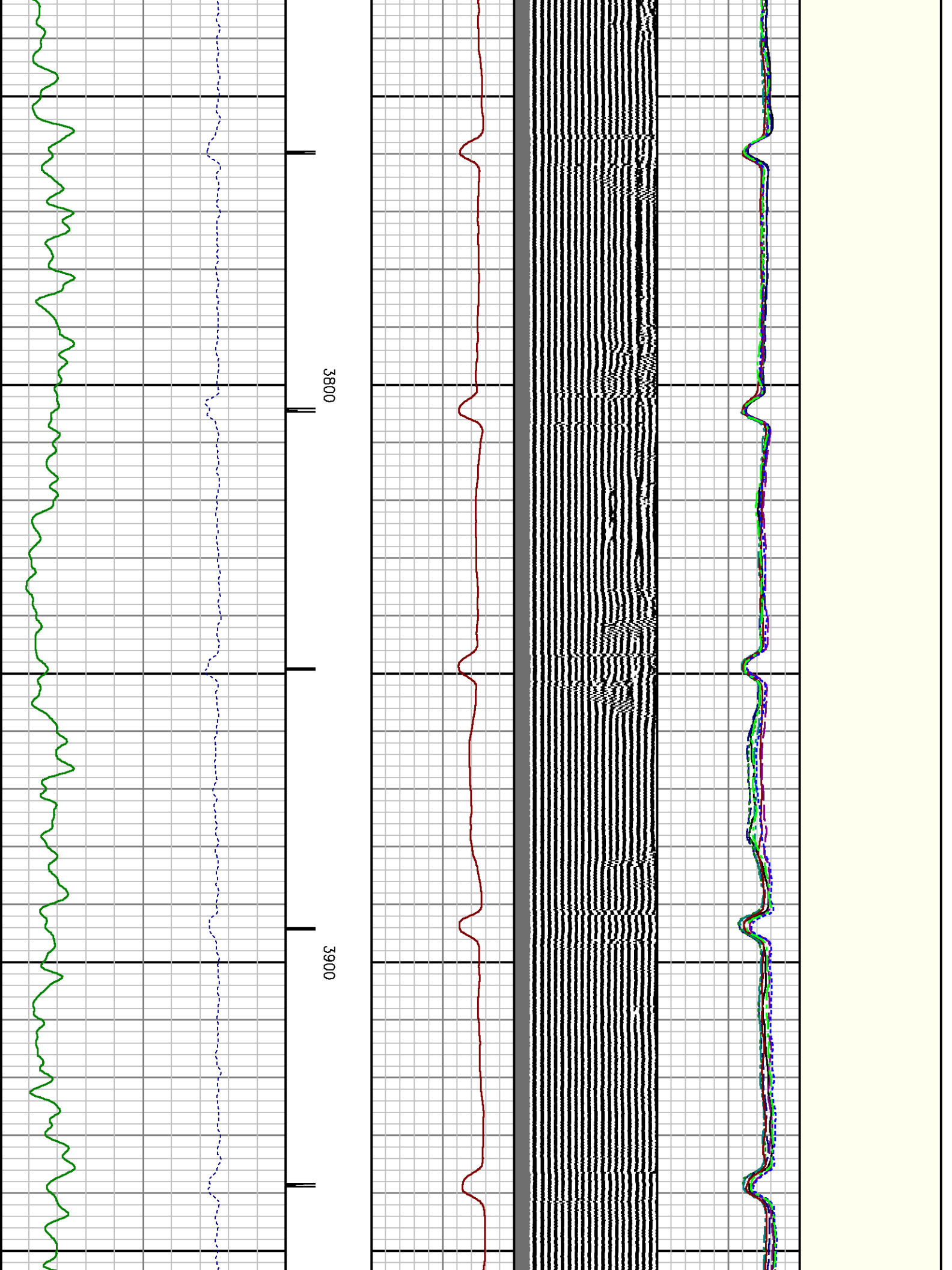


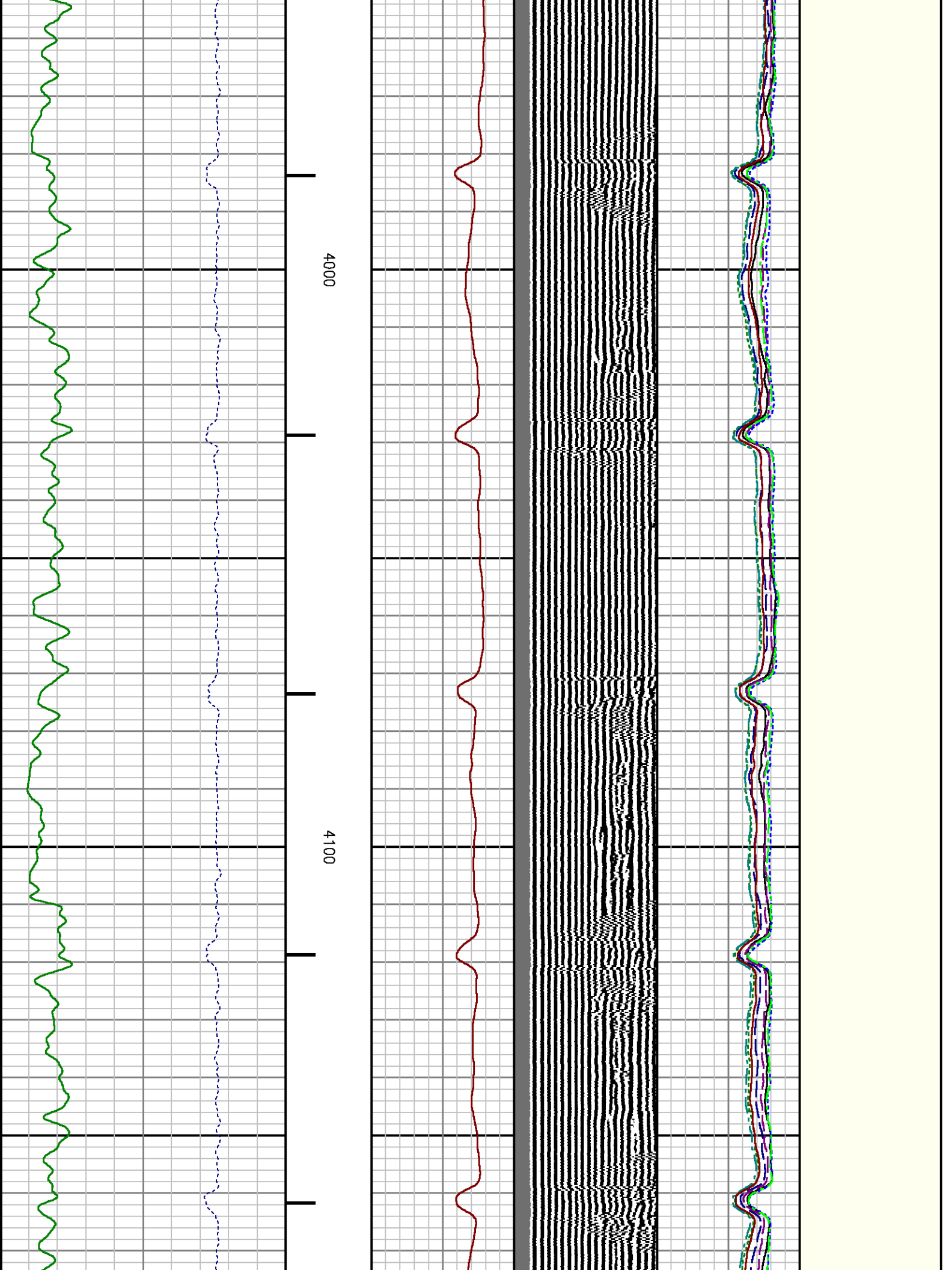


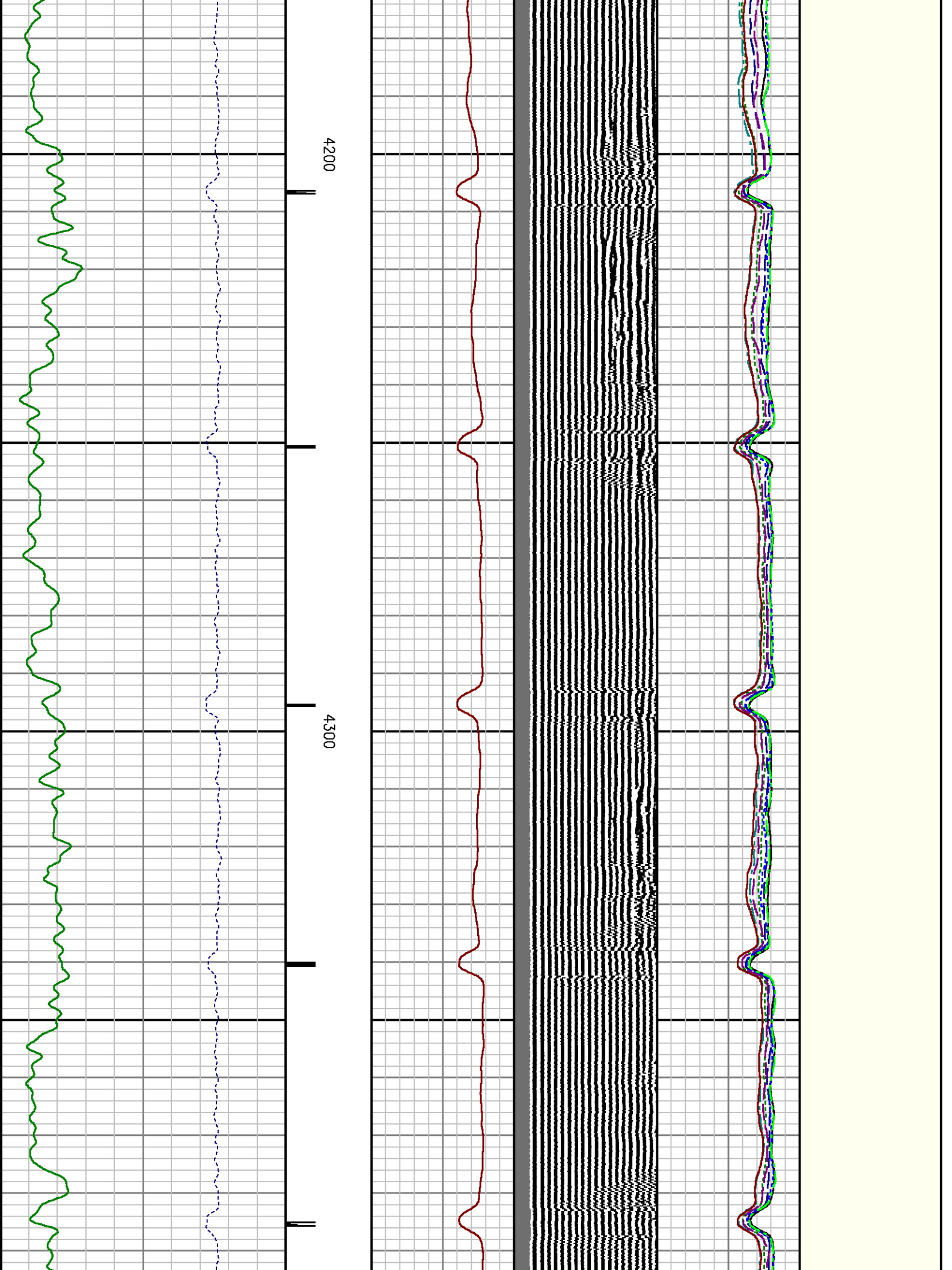


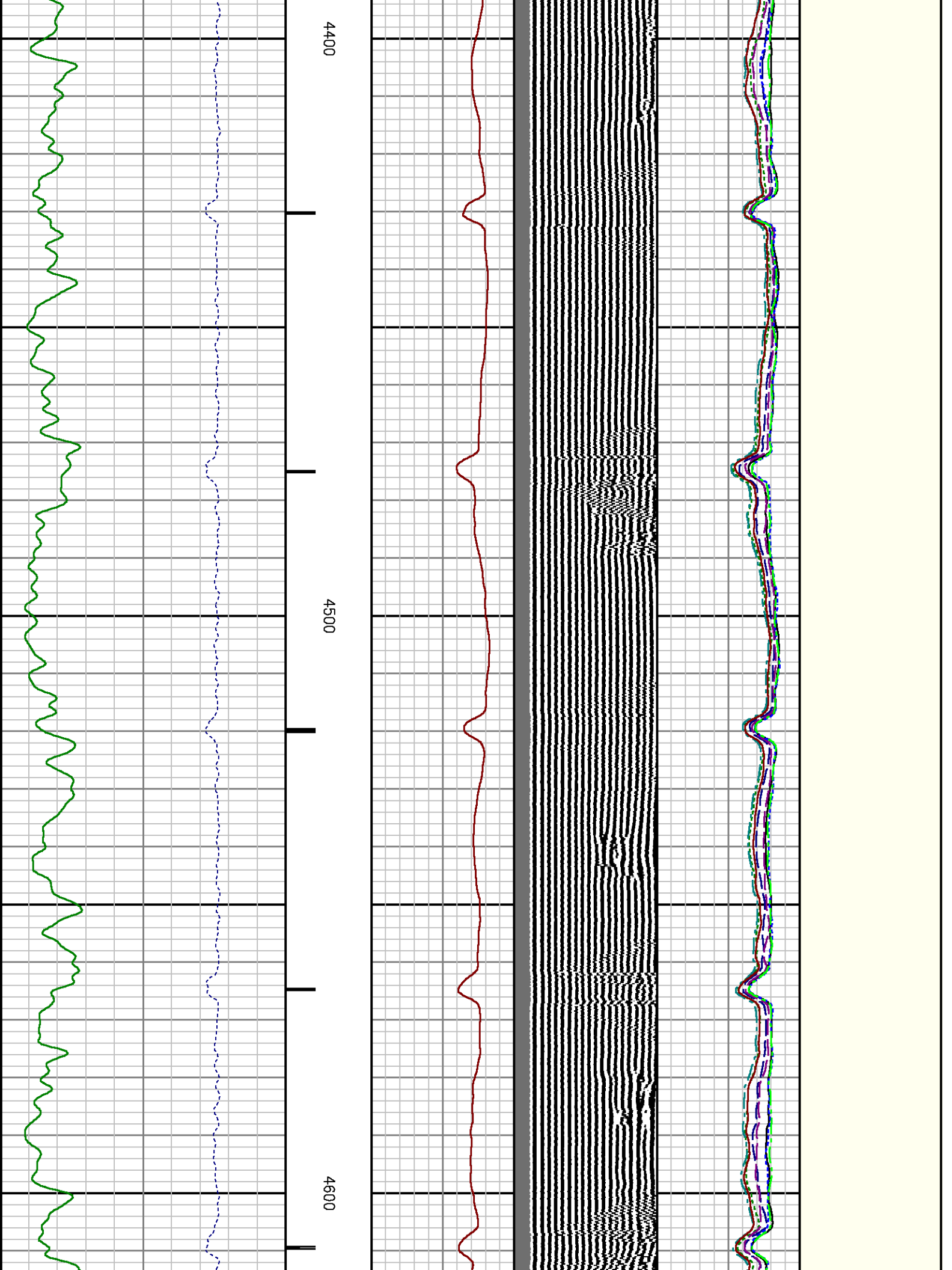


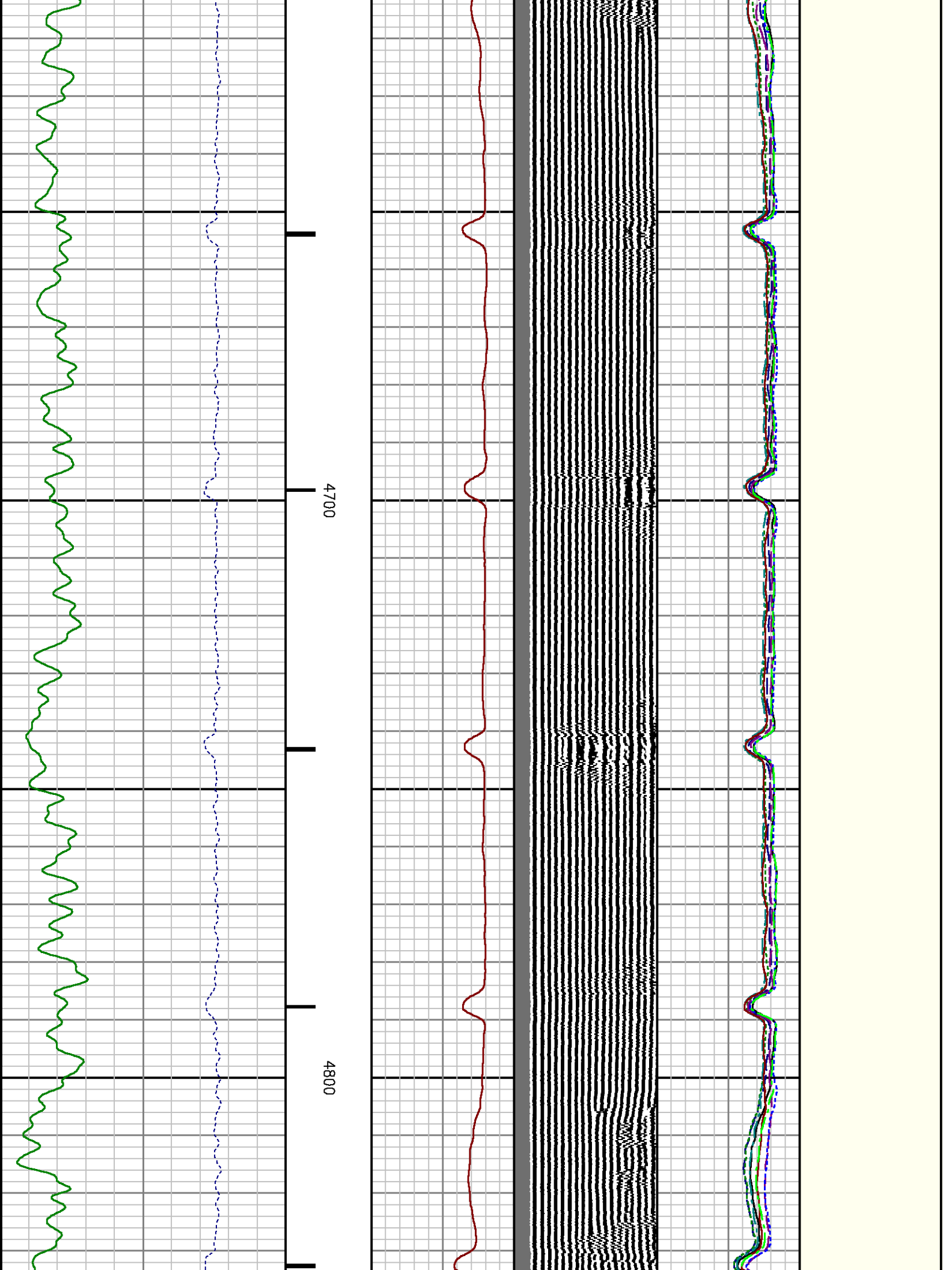


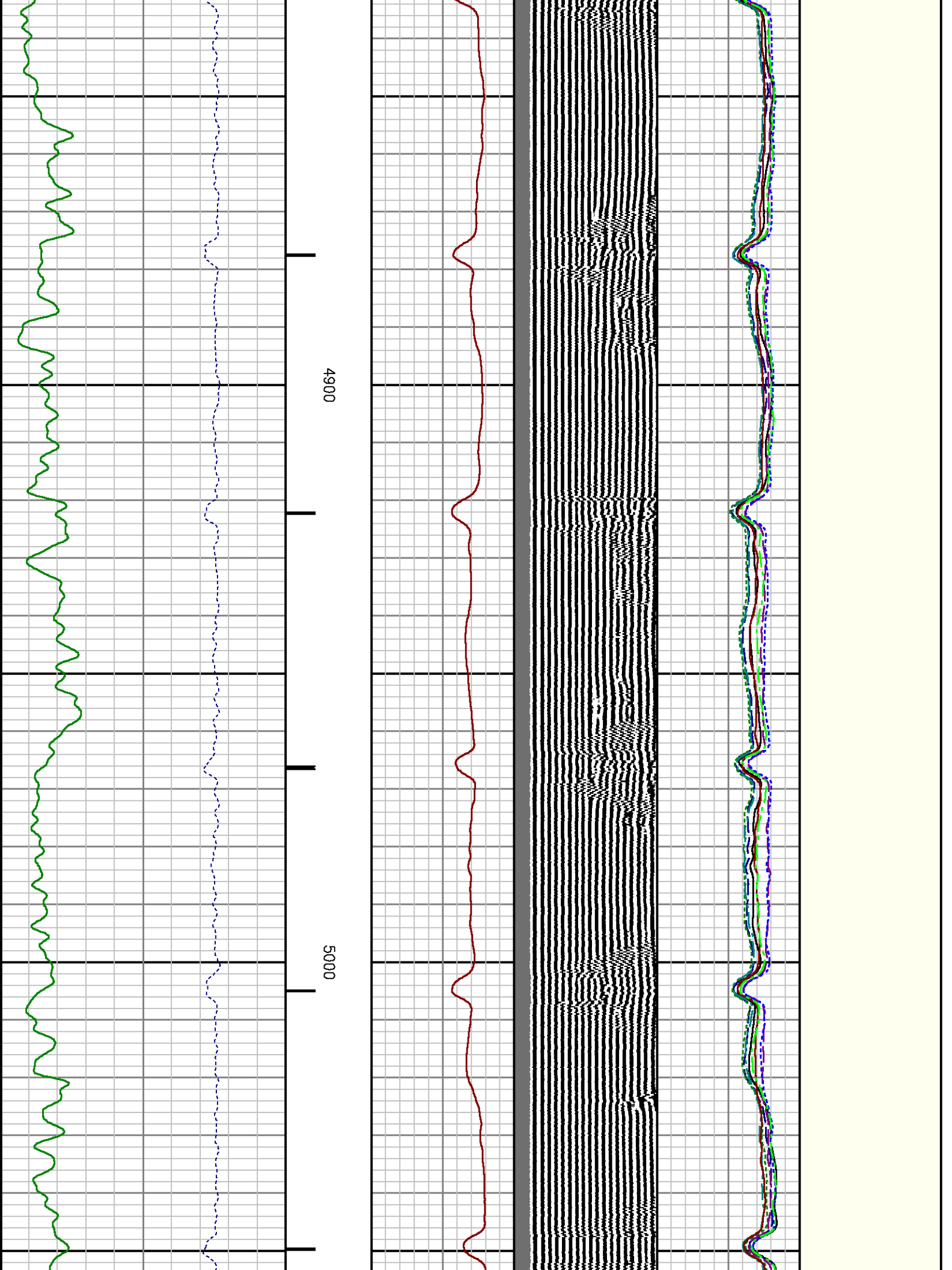


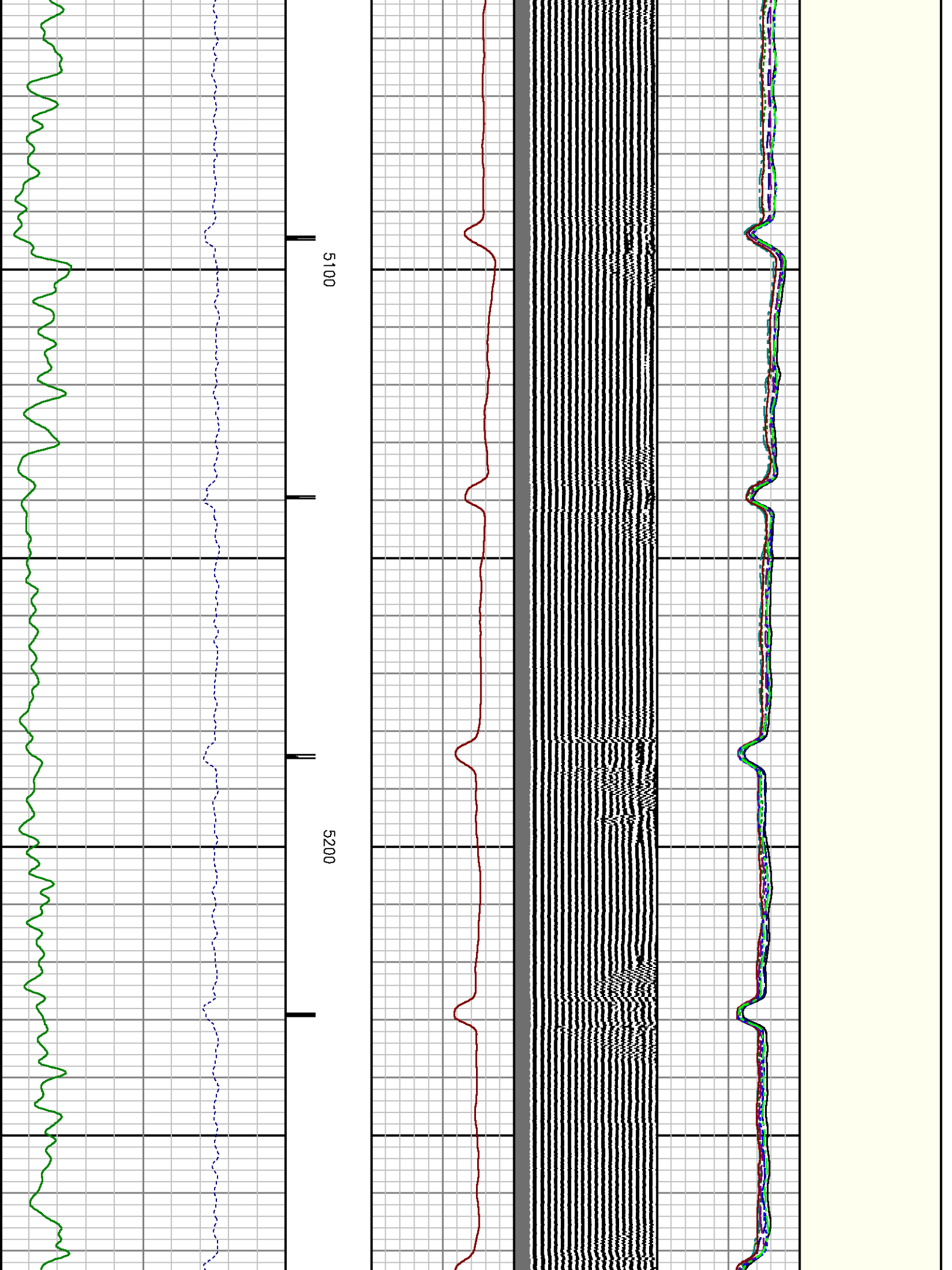


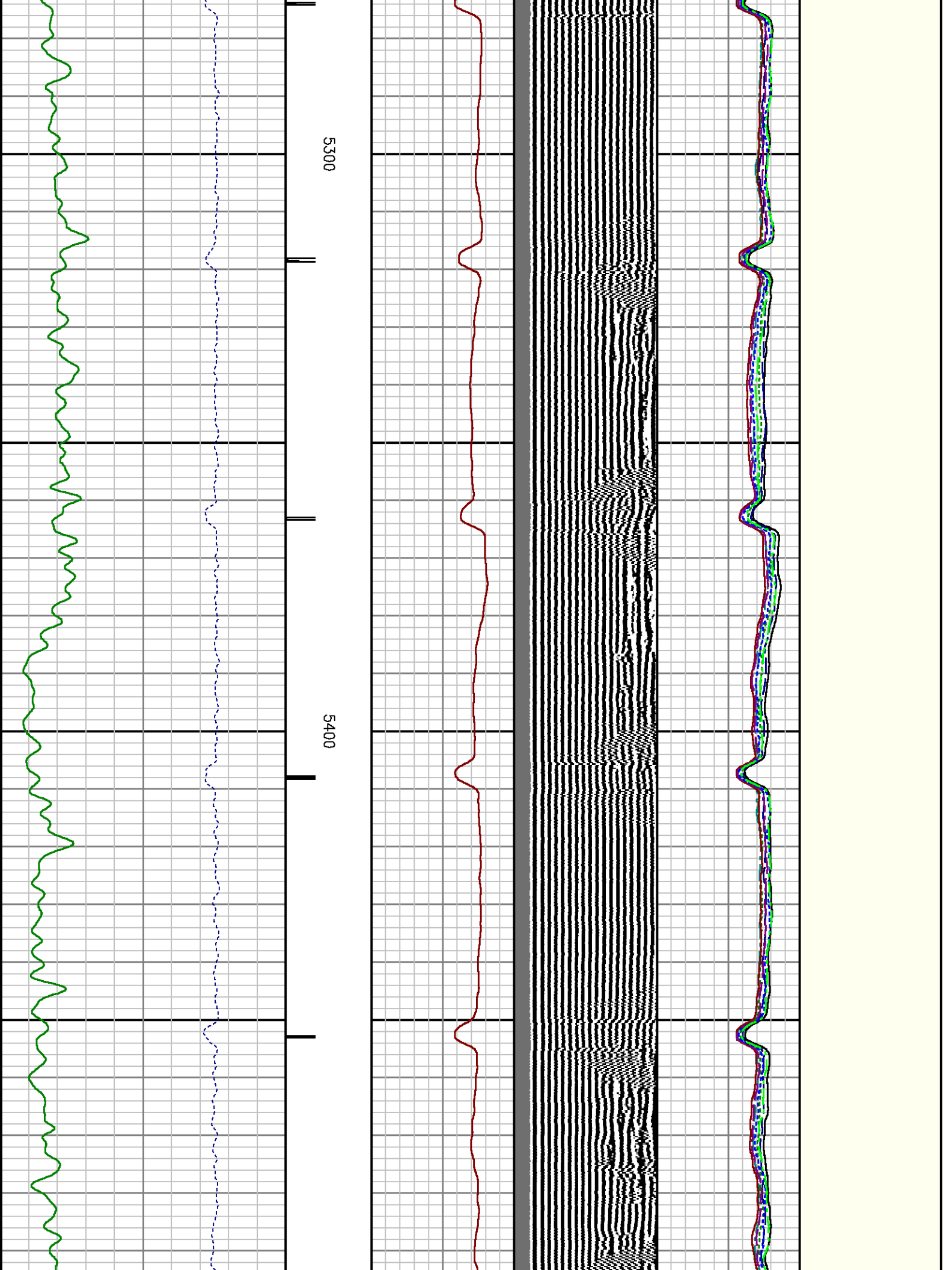


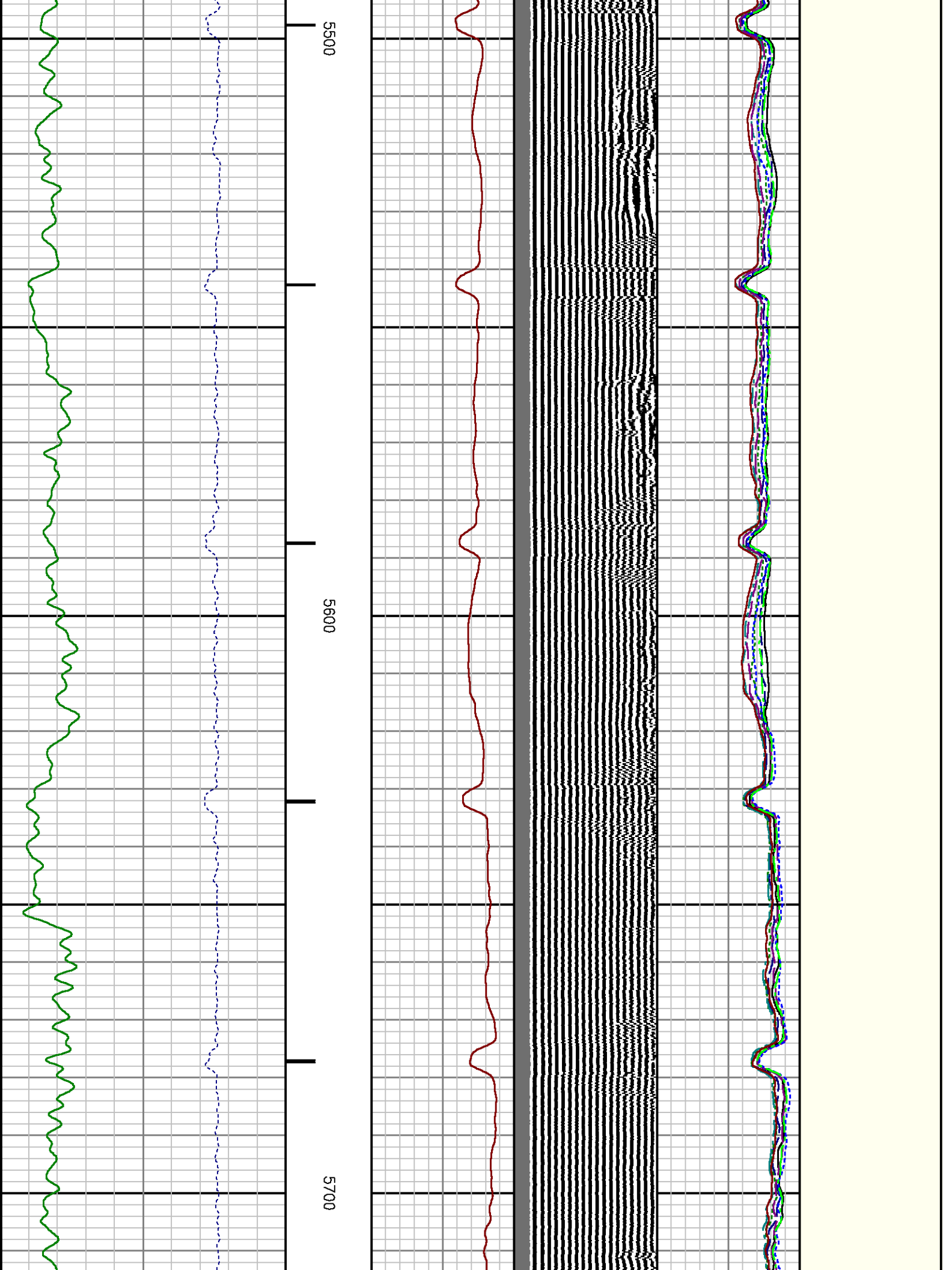


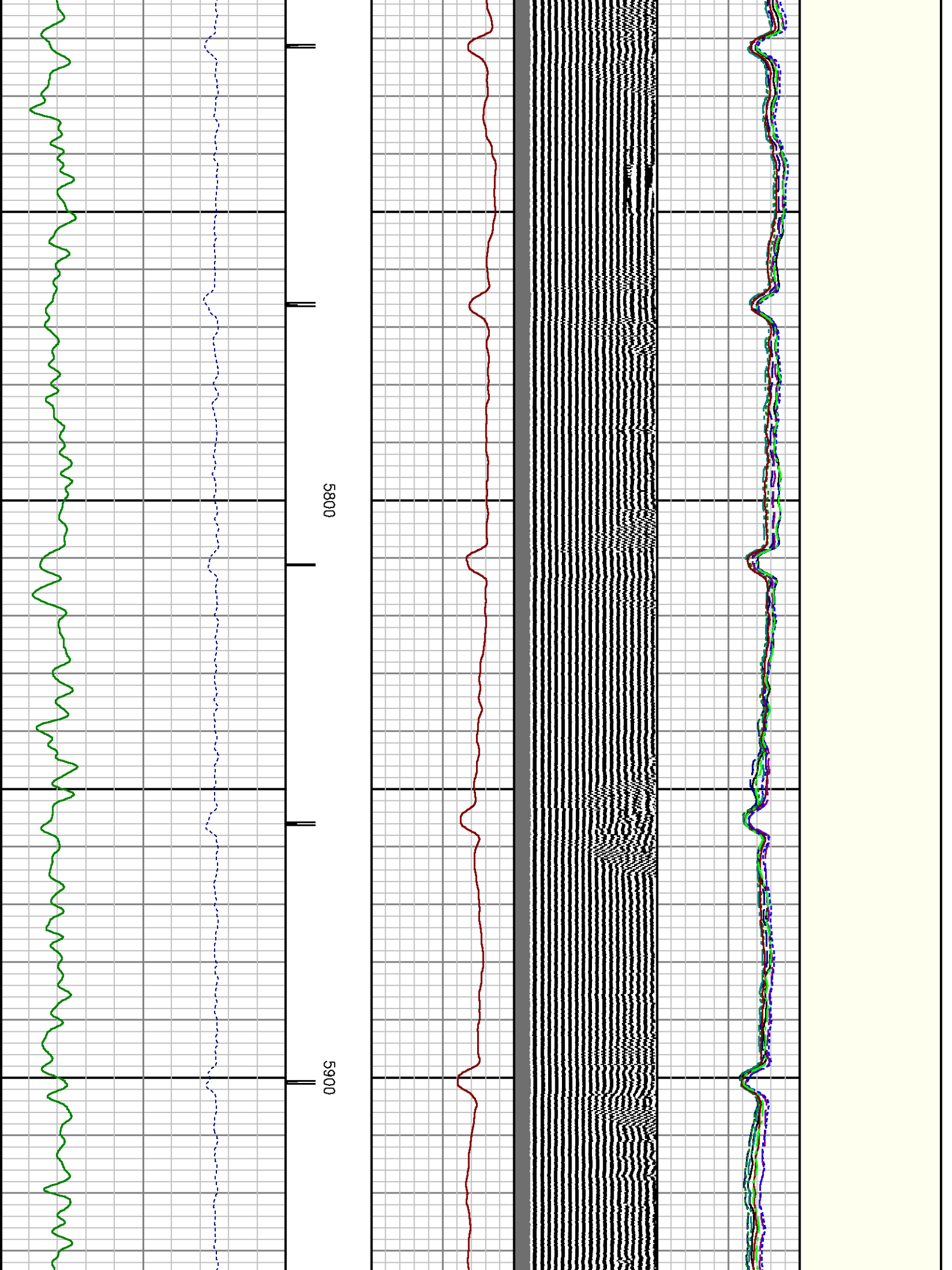


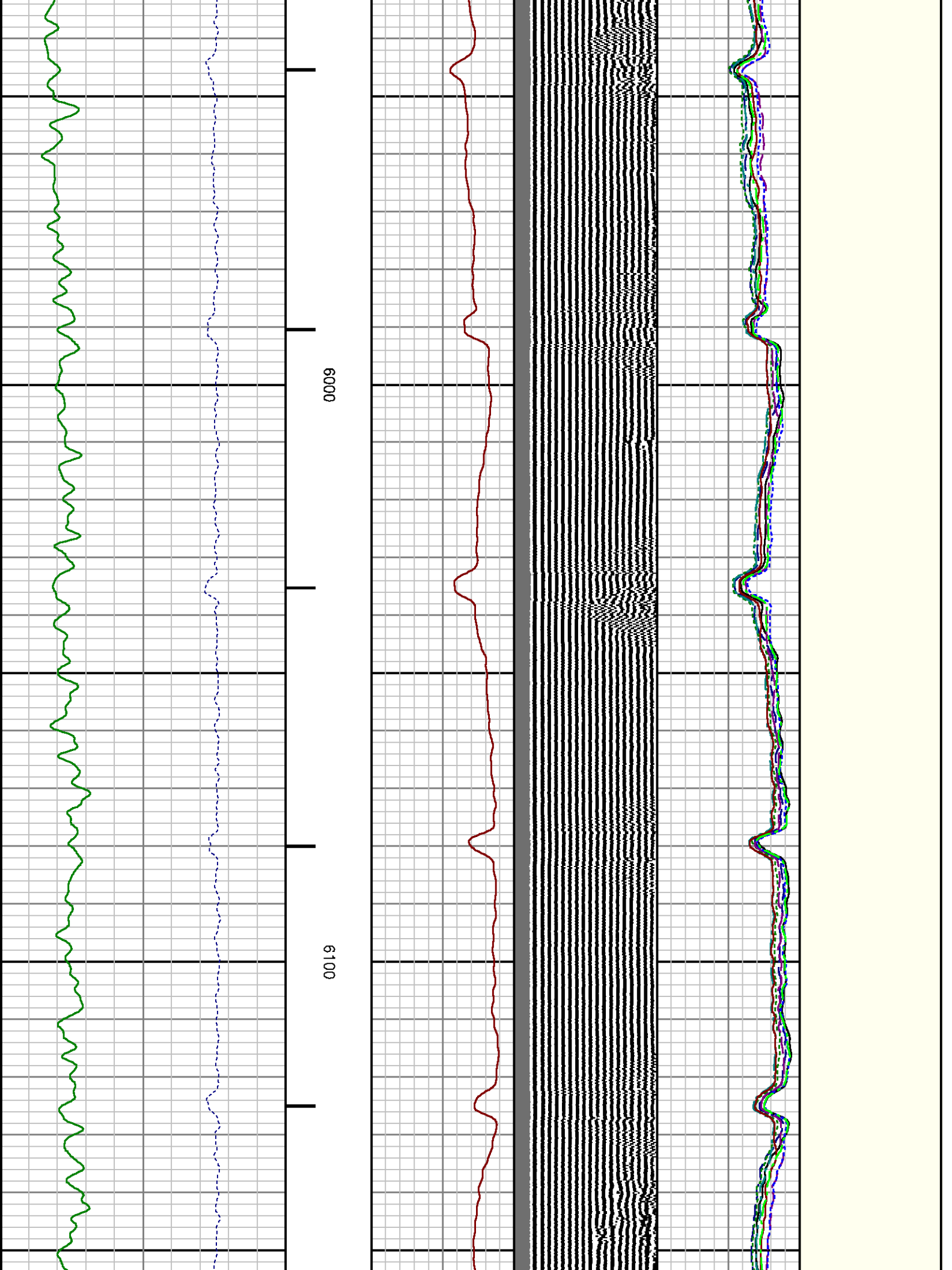


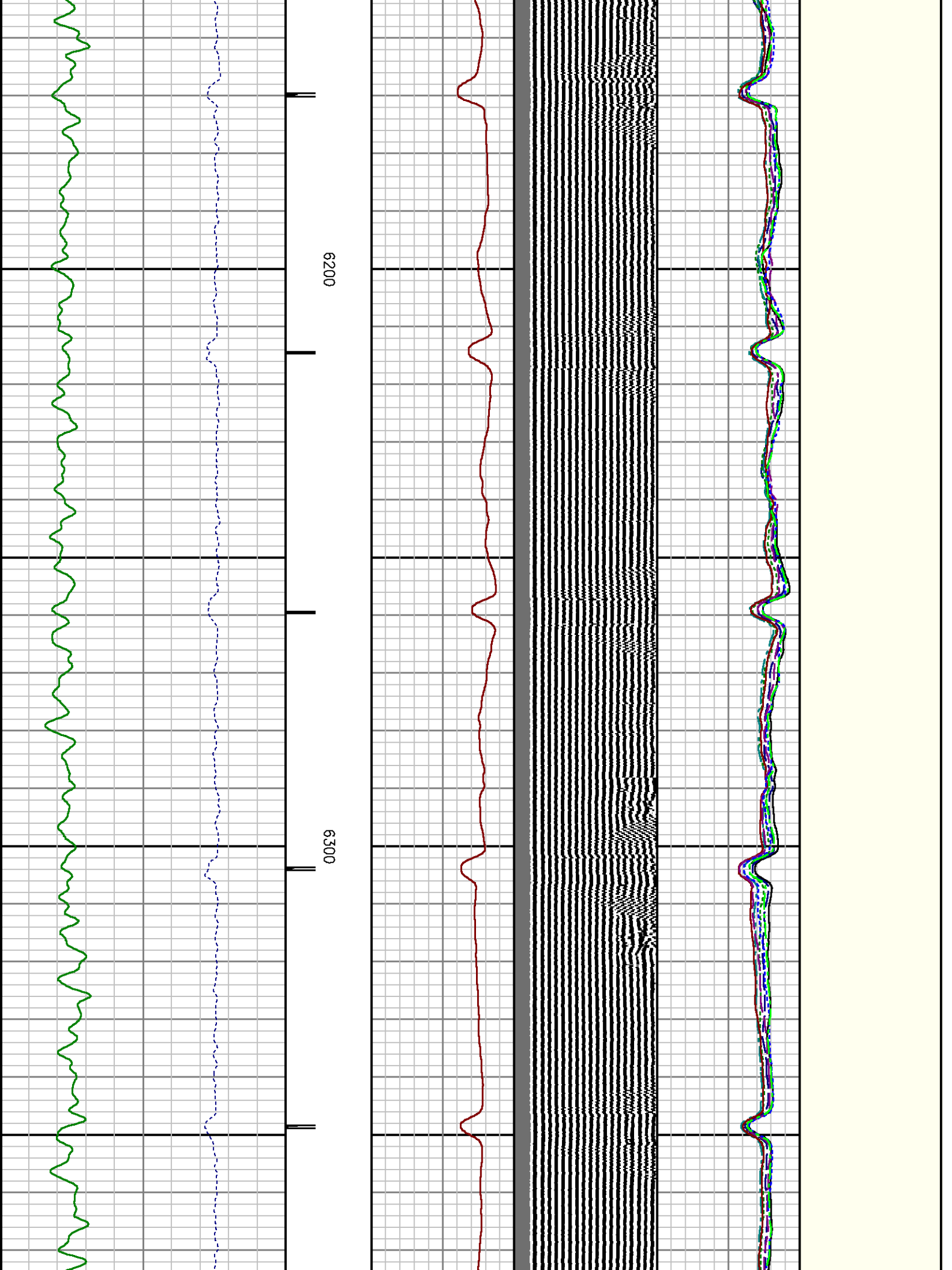


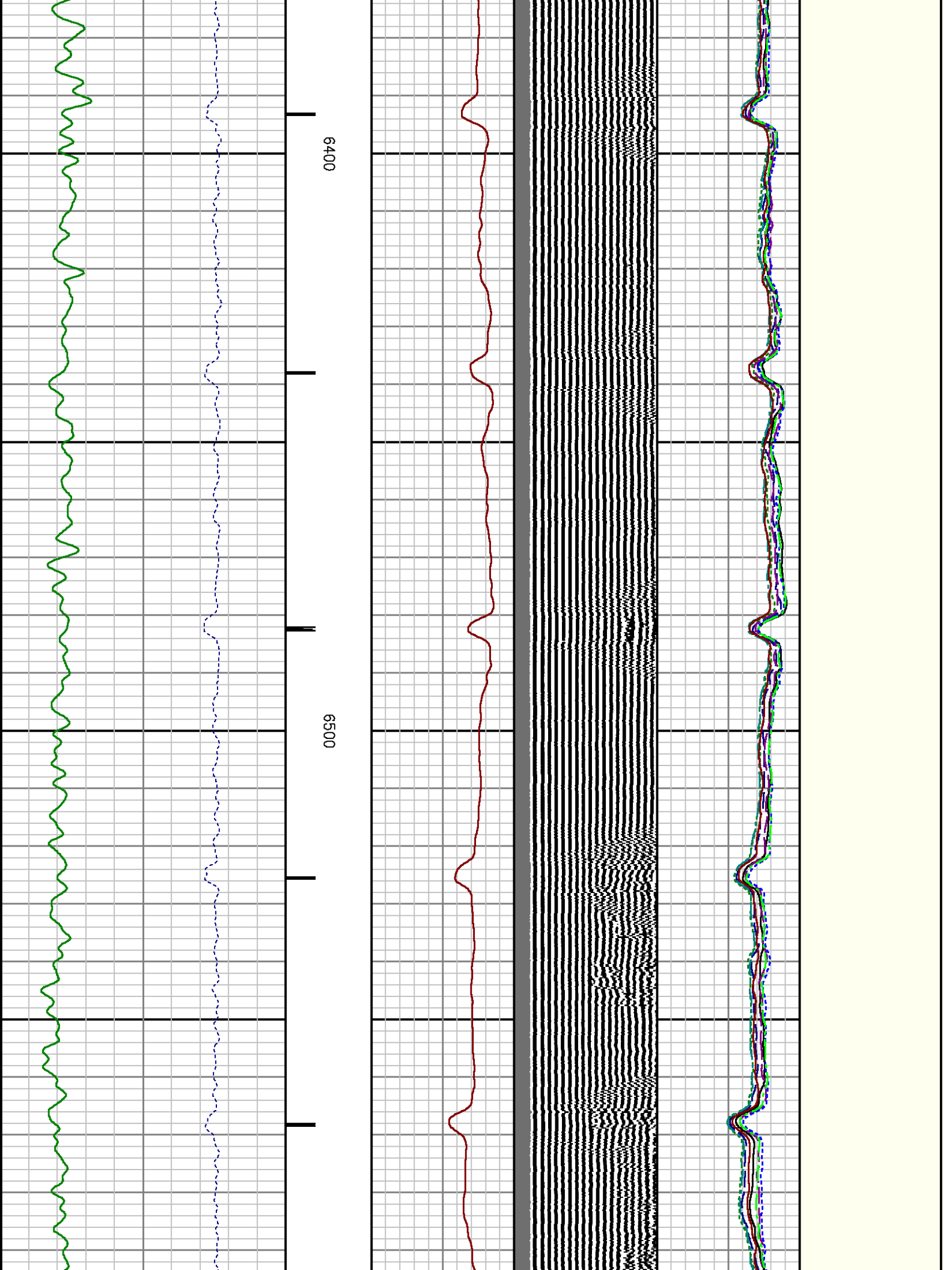


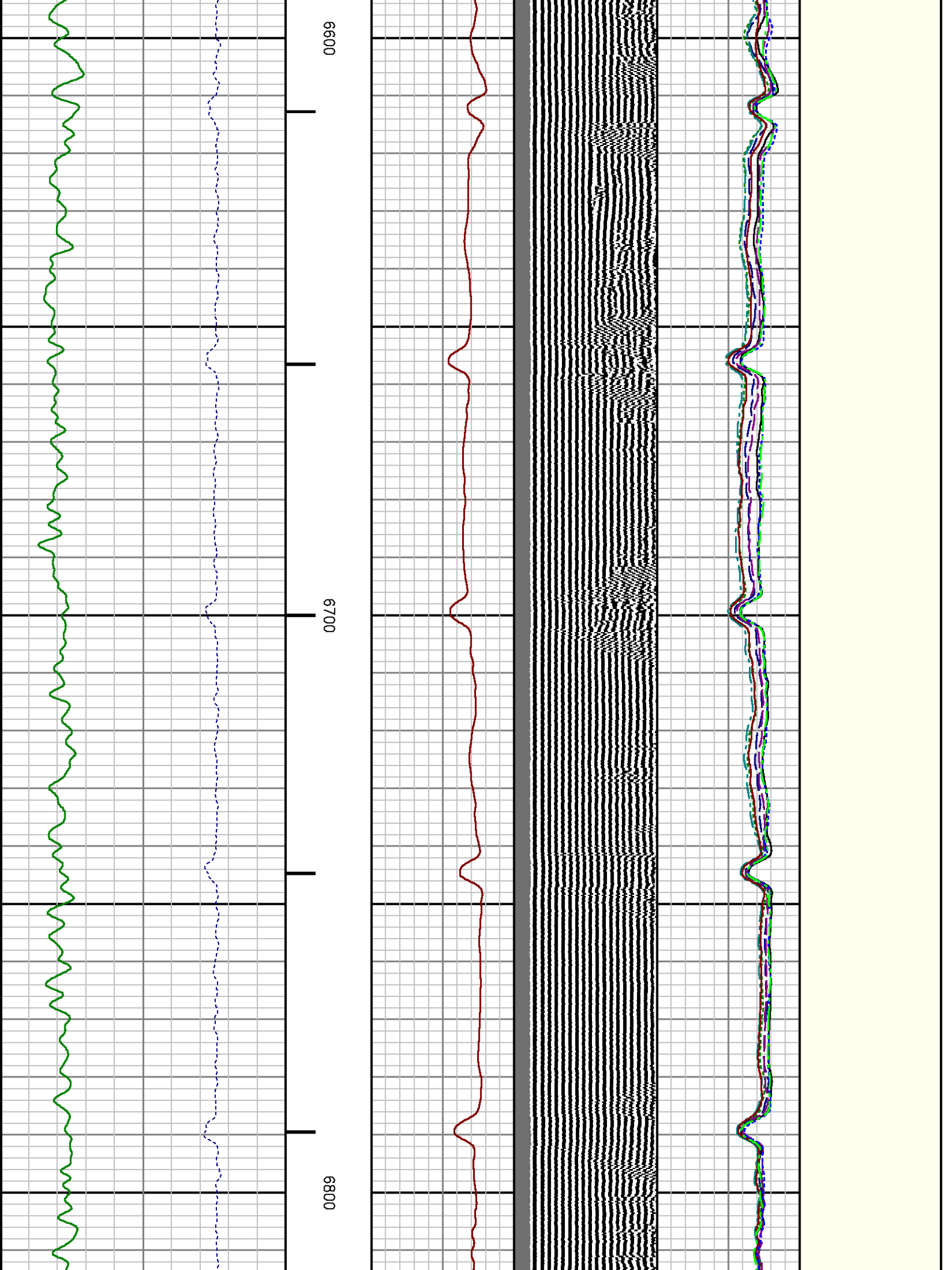


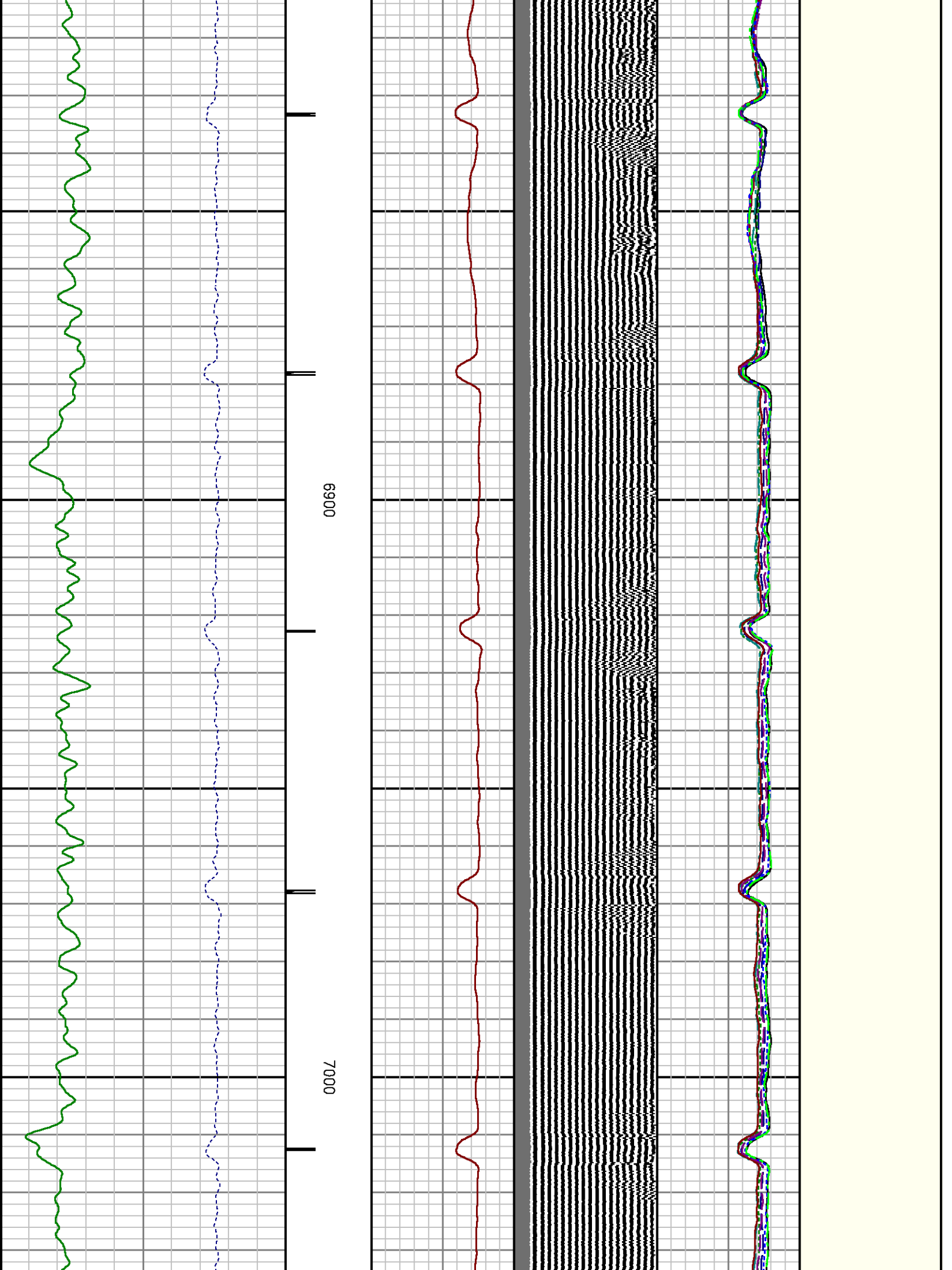


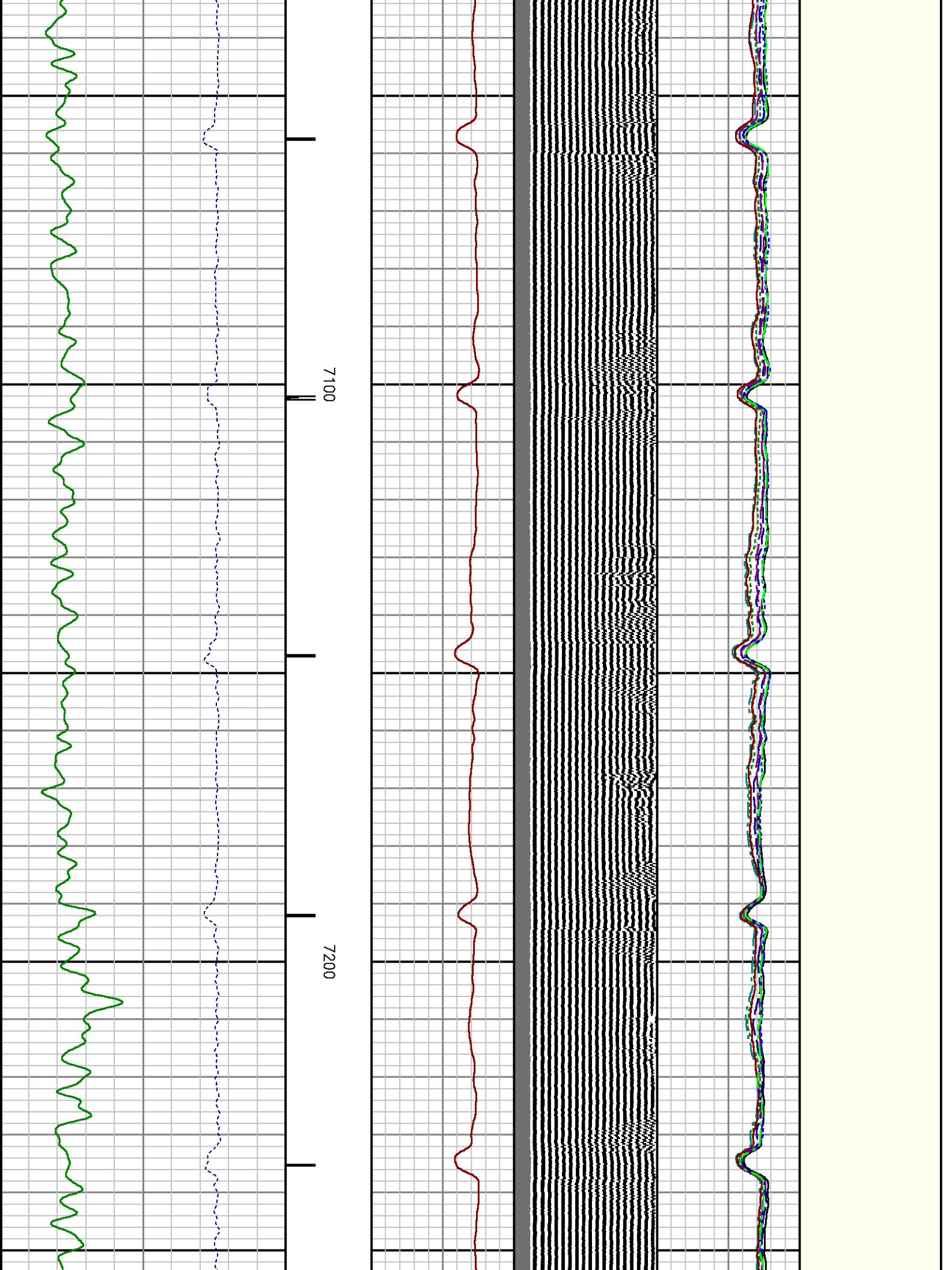


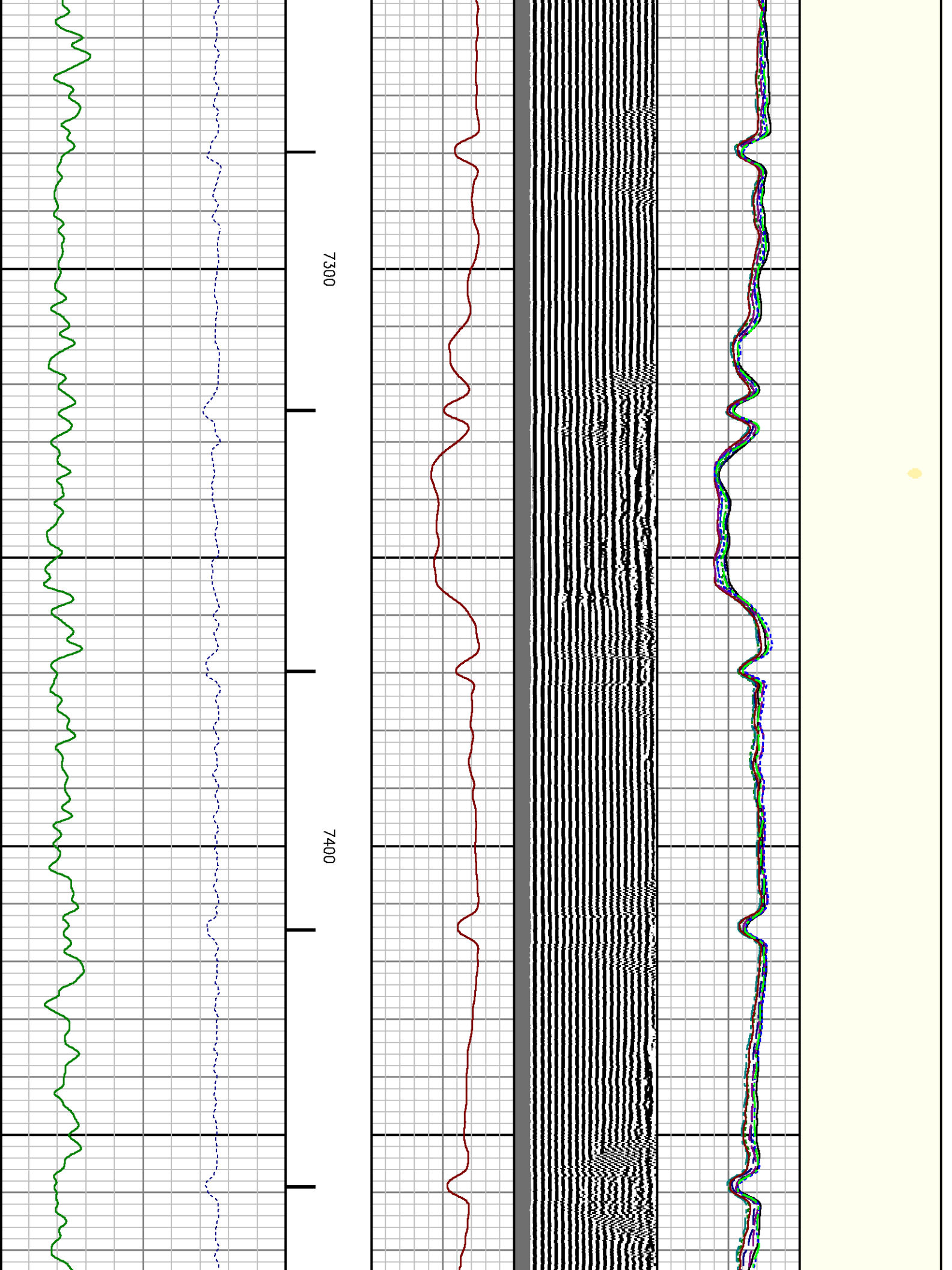


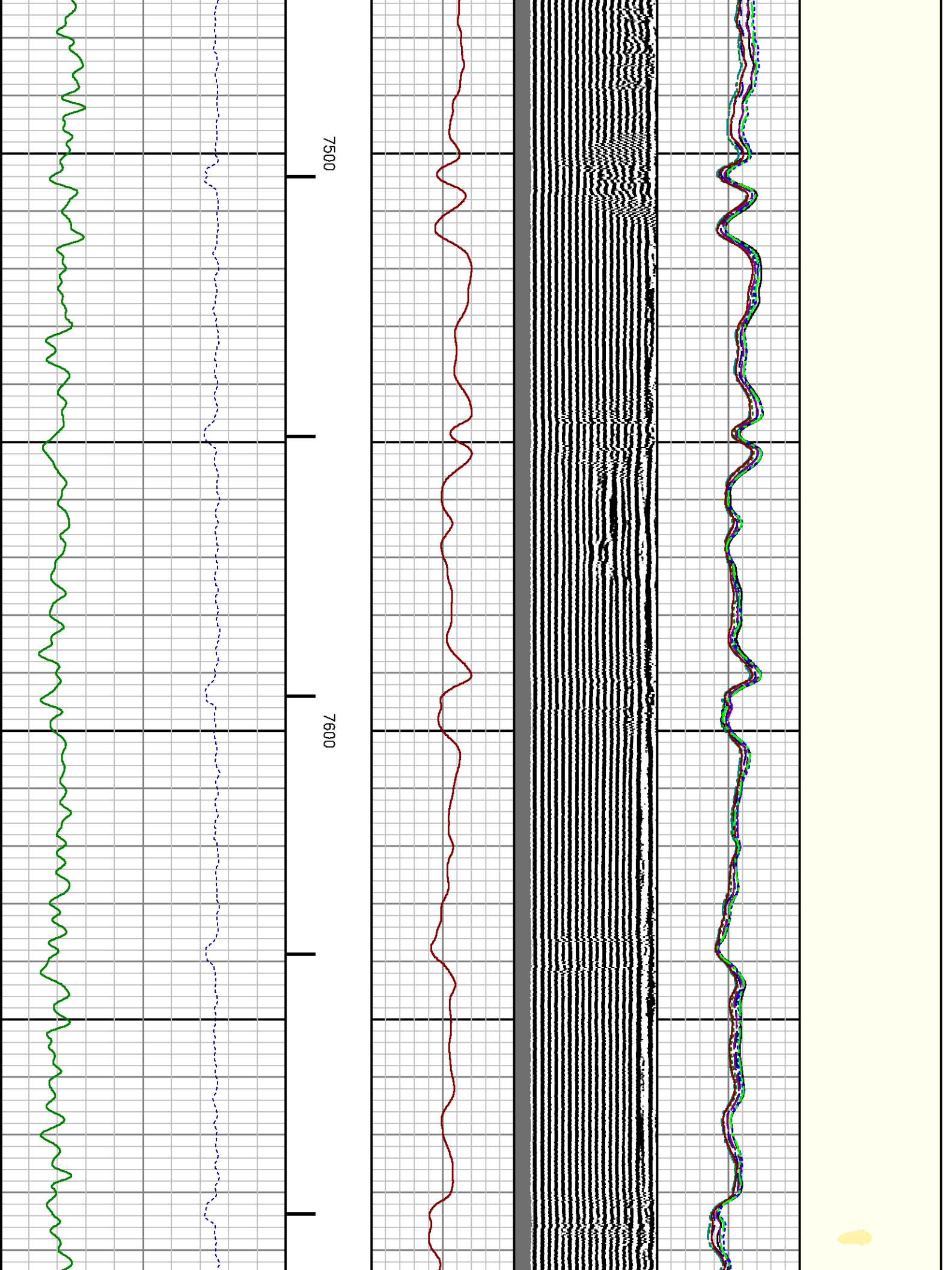


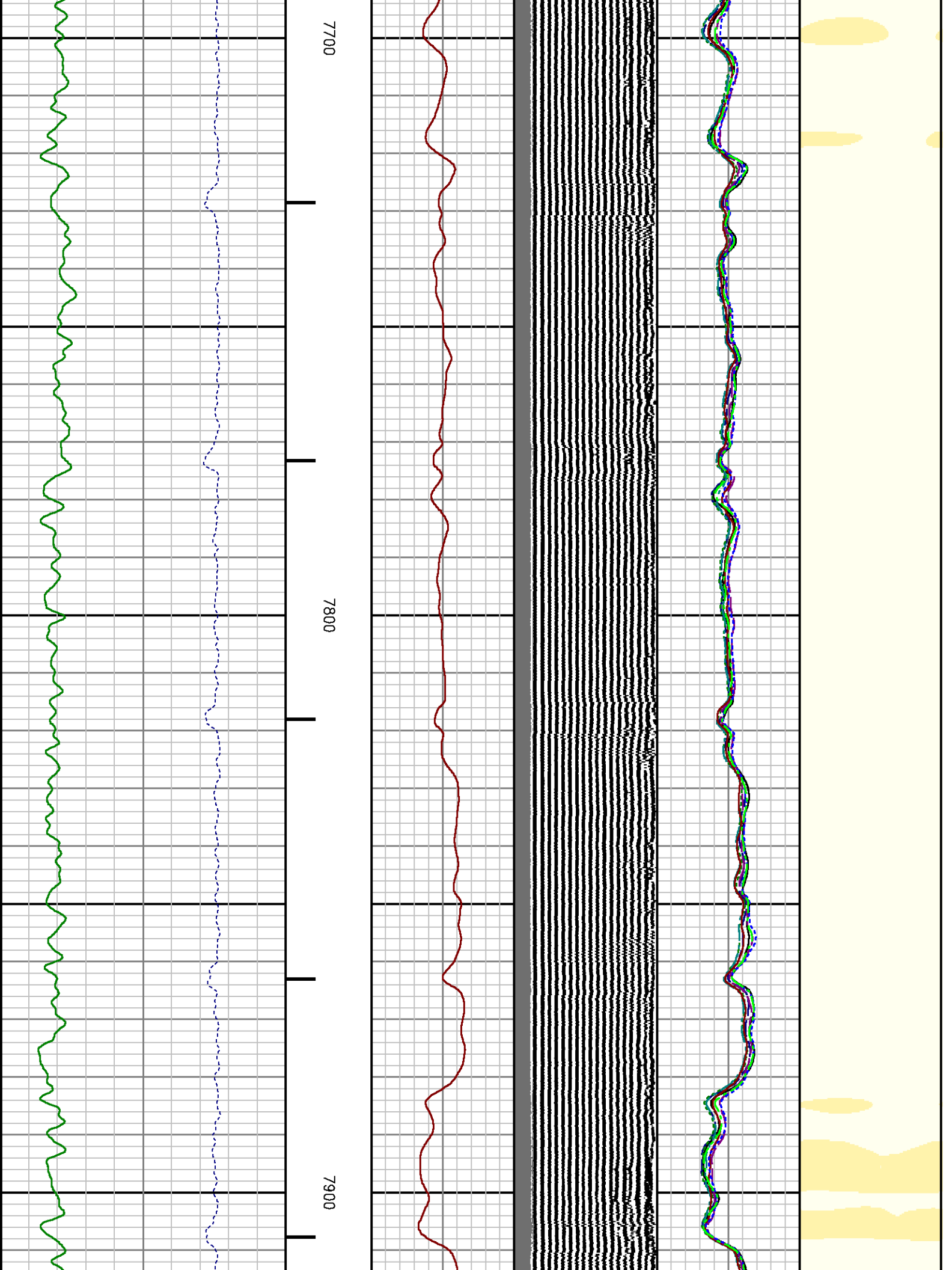


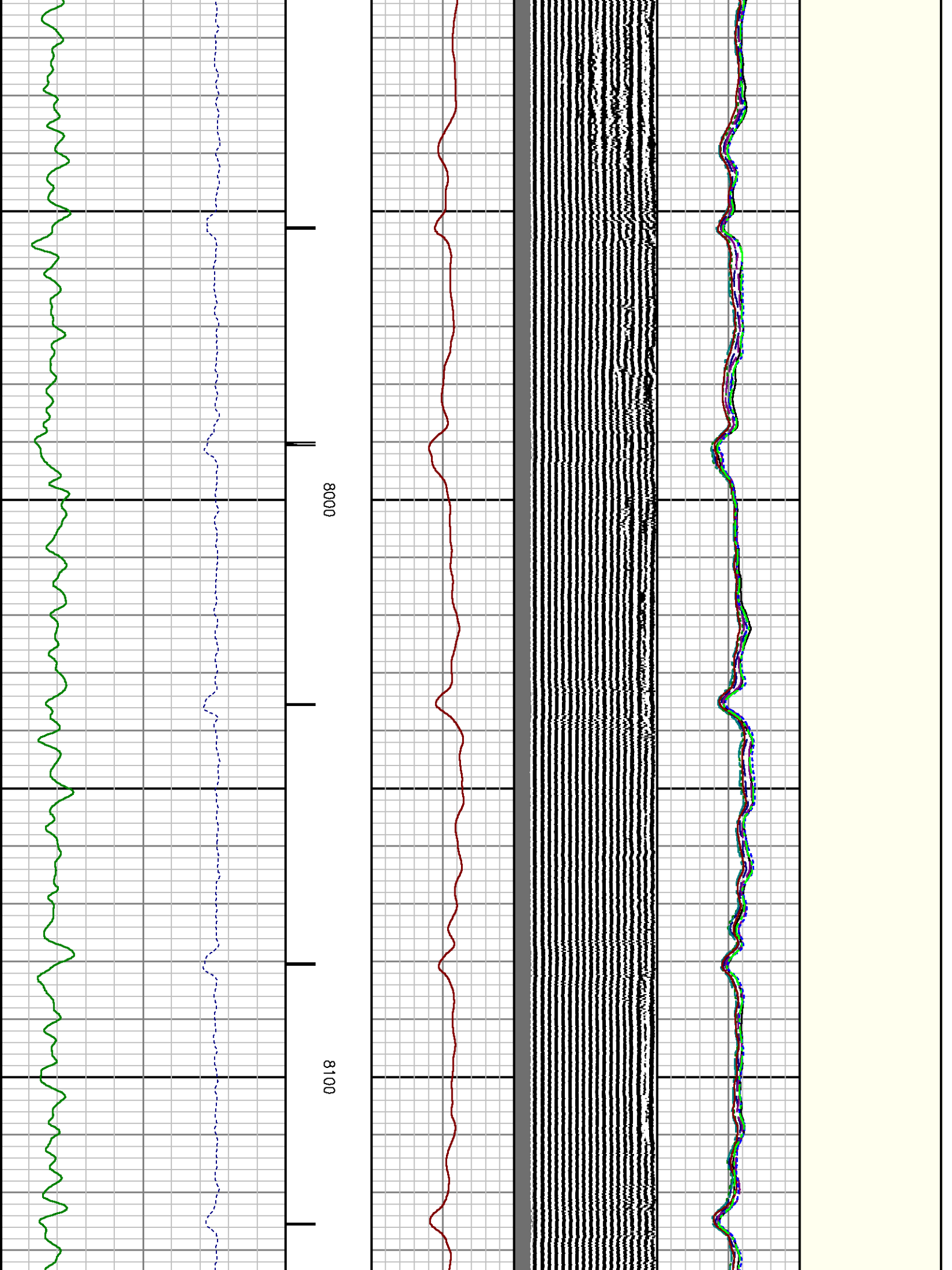


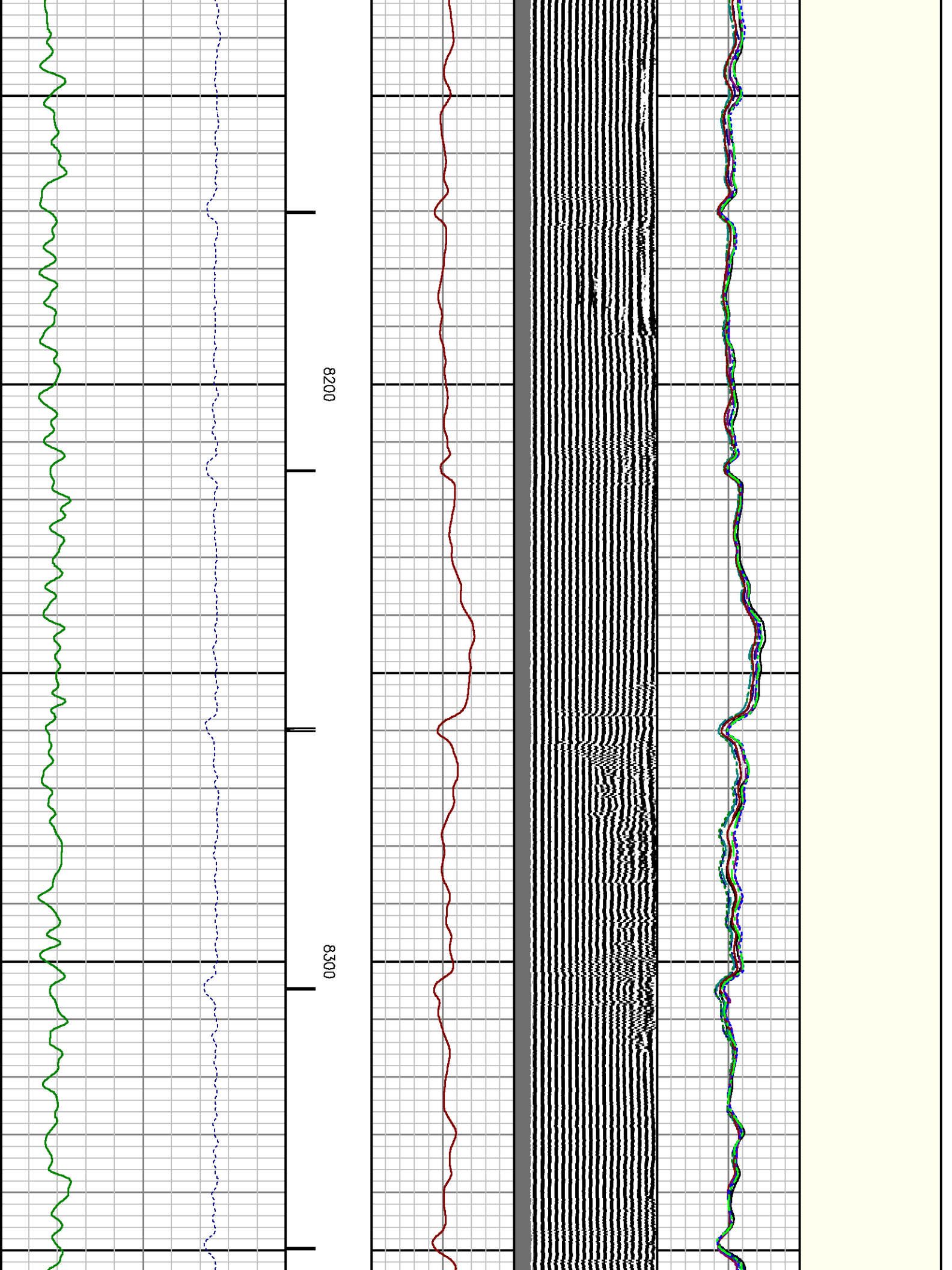


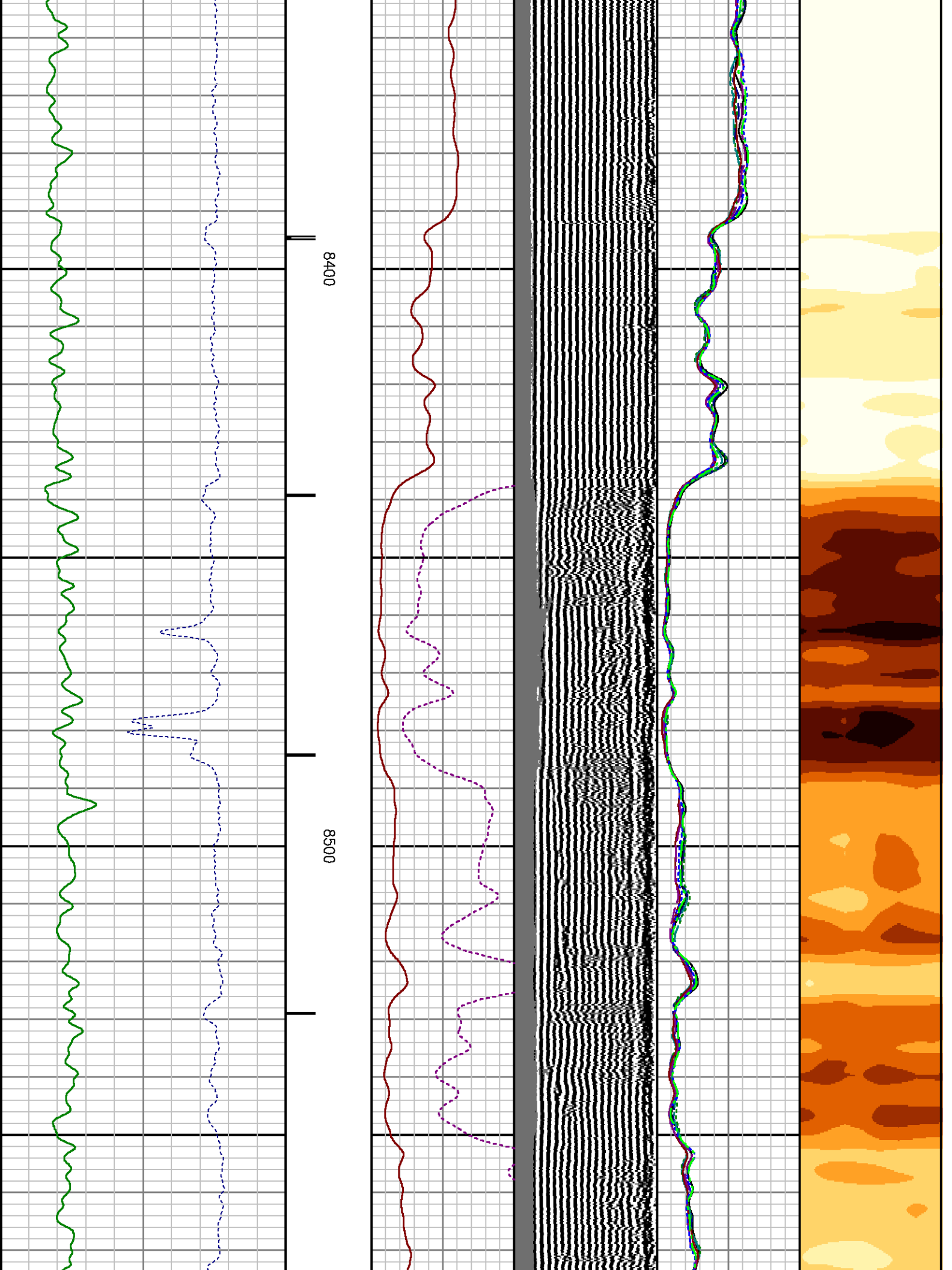


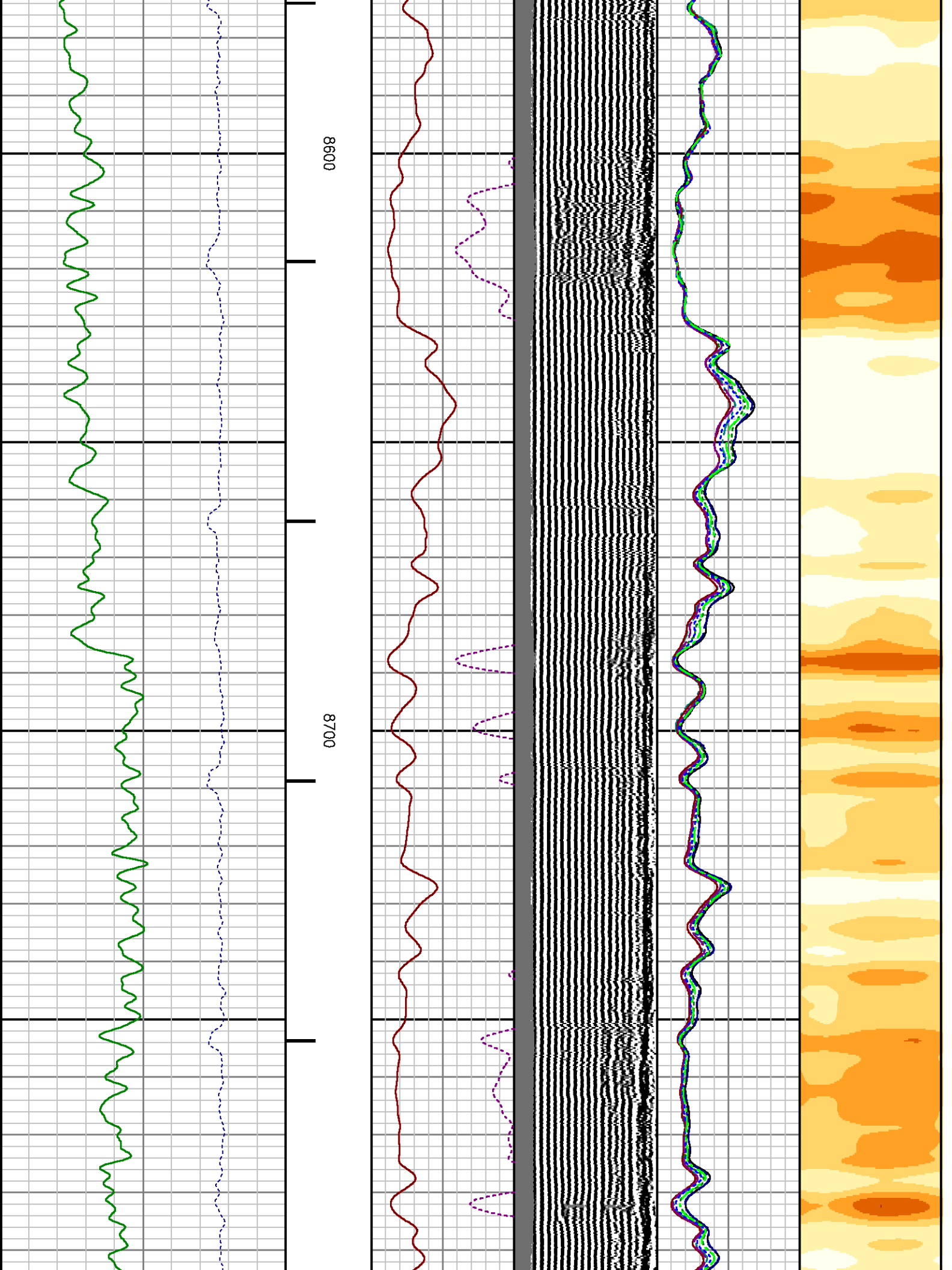


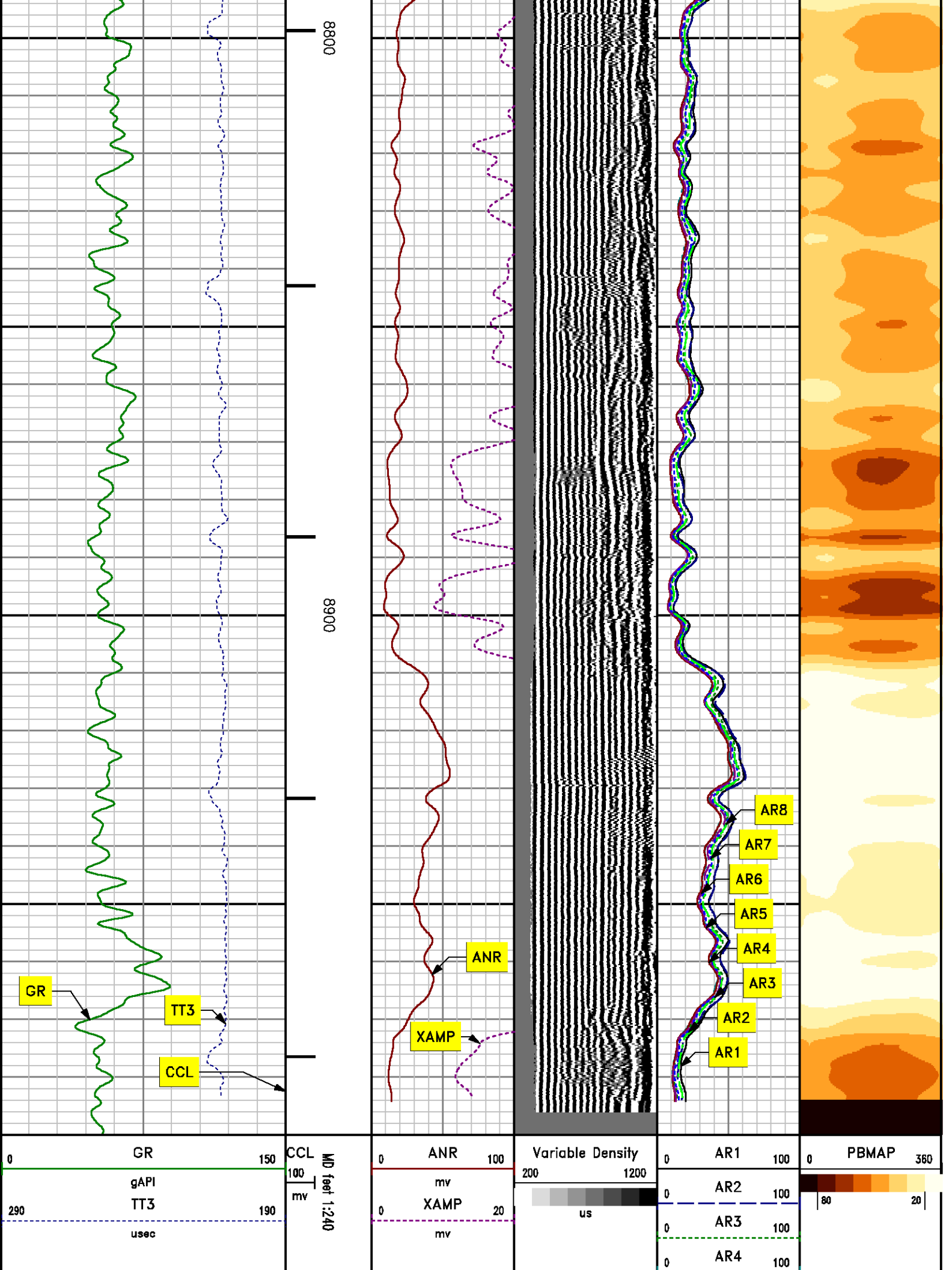












8800

8900

GR

TT3

CCL

ANR

XAMP

AR8

AR7

AR6

AR5

AR4

AR3

AR2

AR1

PBMAP

GR

gAPI

TT3

usec

CCL

100

mv

MD feet 1:240

ANR

100

mv

XAMP

20

mv

Variable Density

200

1200

us

AR1

100

AR2

100

AR3

100

AR4

100

80

20

0

150

290

190

0

100

0

20

0

100

0

100

0

100

0

100

0

360

80

20

0	AR5	100
0	AR6	100
0	AR7	100
0	AR8	100

***REPEAT PASS***  
***0 PSI***

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	320.460	usec	8399.750	8725.000
RAL	Amp Gate Start Near	211.080	usec	8399.750	8725.000
RAL	Amp Gate Start Radial	211.080	usec	8399.750	8725.000
RAL	Amp Gate Width Far	25.000	usec	8399.750	8725.000
RAL	Amp Gate Width Near	25.000	usec	8399.750	8725.000
RAL	Amp Gate Width Radial	25.000	usec	8399.750	8725.000
RAL	casing od	5.500	inches	8399.750	8725.000
RAL	casing wt	23.000	lbm/ft	8399.750	8725.000
RAL	FB Start Far	302.589	usec	8399.750	8725.000
RAL	FB Start Near	186.080	usec	8399.750	8725.000
RAL	FB Start Radial	186.080	usec	8399.750	8725.000
RAL	FB Thresh Far	10.000	mv	8399.750	8725.000
RAL	FB Thresh Near	4.000	mv	8399.750	8725.000
RAL	FB Thresh Radial	4.000	mv	8399.750	8725.000
RAL	Fluid Travel Time	200.000	usec/ft	8399.750	8724.968

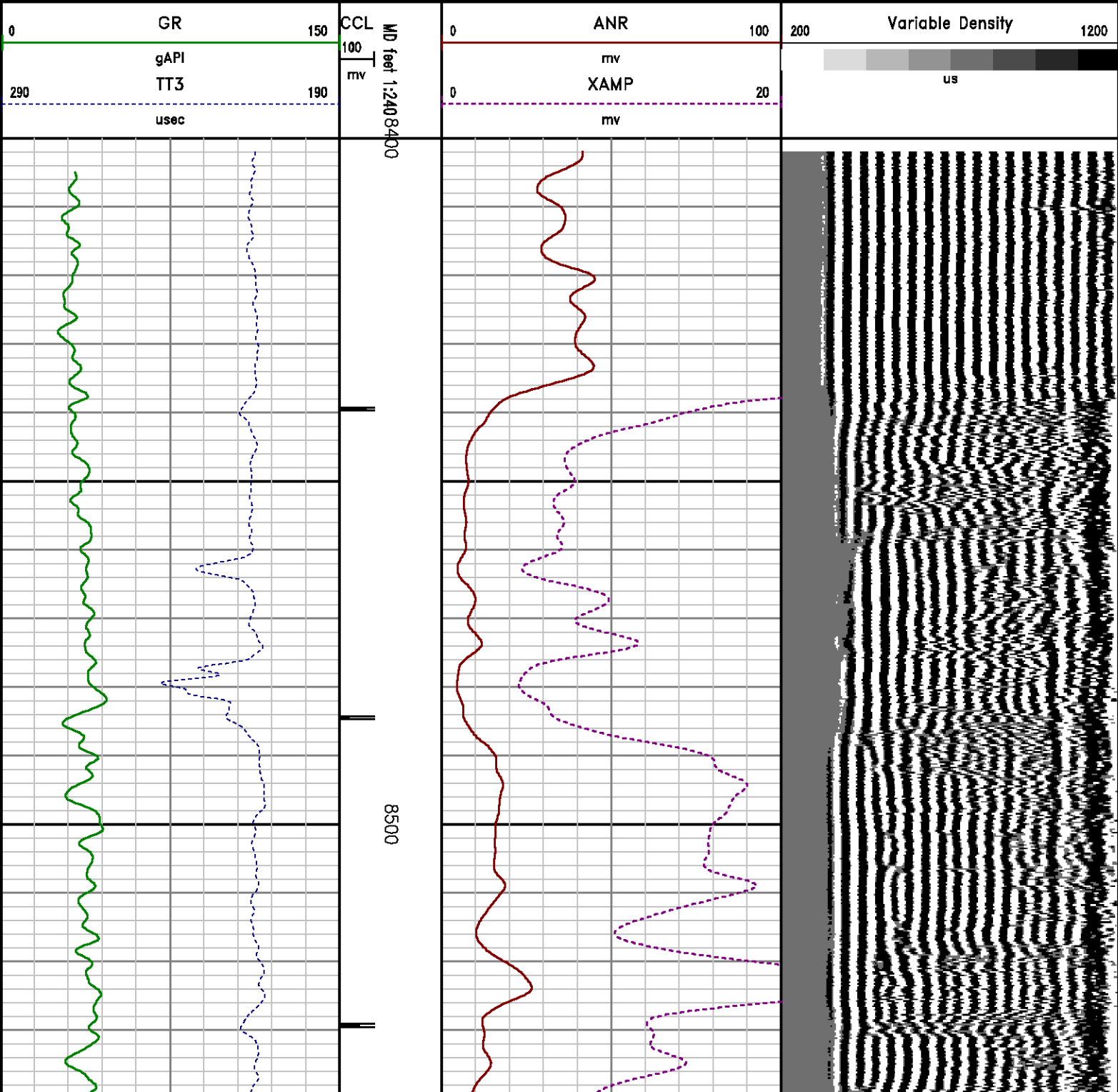
**DEPTH OFFSETS**  
(for Acquired Curves)

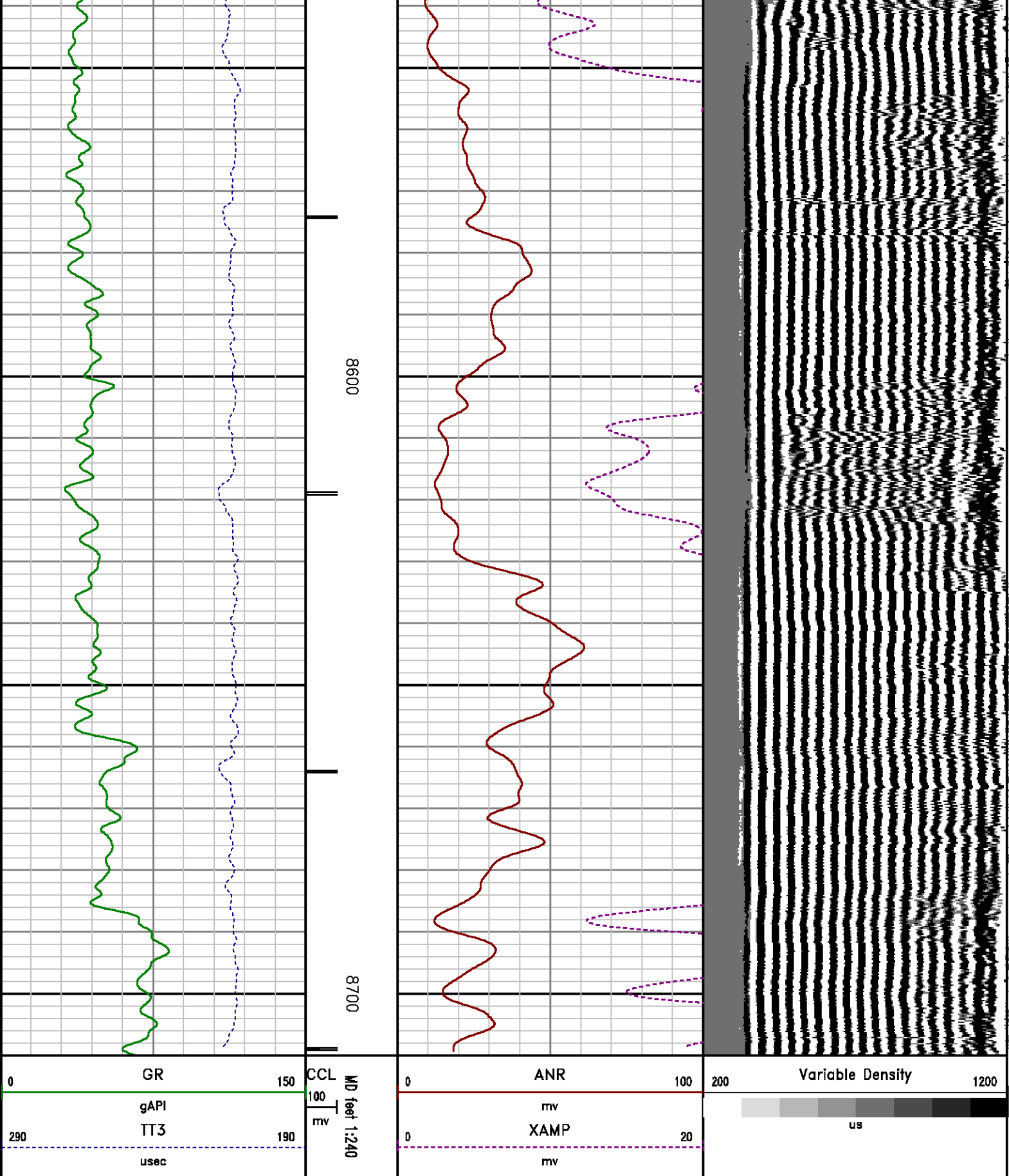
SERIES	DEPTH OFFSET	ACQUIRED CURVES					
1426XA	-16.750	ACAL	ANR	AR1	AR2	AR3	AR4
		AR5	AR6	AR7	AR8	CHV	FPR2
		FPR3	FPR5	TT3	TTR1	TTR2	TTR3
		TTR4	TTR5	TTR6	TTR7	TTR8	XAMP

1426XA	-15.750	AFAR	SIG	TT5
2459XA	-11.340	CCL		
2459XA	-9.490	GR		
2459XA	-4.090	NEU		

Created by : RAL, v4.8.008  
 Plotted by : PlotMgr, v5.4.504

Company : WPX ENERGY  
 Well : BOSELY SG 702-23-HN1  
 File Name : d:\welldata\cb1702\repeat.xtf  
 Mode : PlotMgr 5.4.504  
 Interval : 8400.00 - 8710.00 feet UP  
 Created : 7/7/2013 9:32:26 AM





# CALIBRATION SUMMARY

# GAMMA RAY

Calibration File: C:\case\calver\GR\457J7.cal

### CALIBRATION SUMMARY

DATE/TIME PERFORMED:		Thu Jun 27 10:39:16 2013		TOOL SERIES:	2459XA	ASSET:	457	SEQ:	J7
Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [api]			
S2K WA612	63.02	286.49	0.828	52.17	237.17	185.00			

Verification File: C:\case\calver\GR\457J7.VP

### PRIMARY LOG VERIFICATION

DATE/TIME PERFORMED:		Thu Jun 27 10:41:02 2013		TOOL SERIES:	2459XA	ASSET:	457	SEQ:	J7
Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [api]			
S2K WA612	64.36	287.51	0.828	53.28	238.02	184.74			

# RALSHP

Shop Calibration: C:\case\calver\RALSHP\106JUL7\_shp.cal

### SHOP CALIBRATION SUMMARY

DATE/TIME PERFORMED:		Sun Jul 07 08:51:17 2013		TOOL SERIES:	1426XA	ASSET:	106	SEQ:	JUL7
Tool Delay [usec]	-57.00	Tank OD in	5.50	Tank Wt lbm/ft	15.50	Tank ID in	4.95		
RECEIVER	Travel Time [usec]	Amp. Gate Start [usec]	Amp. Gate Width [usec]	Zero Gate Start [usec]	Zero Gate Width [usec]	Zero Amp. [mV]	Amp Ref. [mV]	Shop Factor	
CAL Pulse	220	216	30	166	25	-0.061	100.00	0.18	
3 Ft. Receiver	220	216	30	166	25	-0.453	100.00	0.18	
5 Ft. Receiver	328	324	30	265	25	0.294	150.00	0.19	
Radial #1	219	216	30	166	25	-0.693	100.00	0.18	
Radial #2	219	216	30	166	25	0.014	100.00	0.18	
Radial #3	220	216	30	166	25	-0.385	100.00	0.18	
Radial #4	220	216	30	166	25	-0.461	100.00	0.18	
Radial #5	220	216	30	166	25	-0.190	100.00	0.18	
Radial #6	220	216	30	166	25	-0.265	100.00	0.18	
Radial #7	219	216	30	166	25	-0.251	100.00	0.18	
Radial #8	220	216	30	166	25	-0.277	100.00	0.18	

# RALFLD

WELLSITE CALIBRATION SUMMARY

DATE/TIME PERFORMED: Sun Jul 07 08:52:57 2013 TOOL SERIES: 1426XA ASSET: 106 SEQ: JUL7

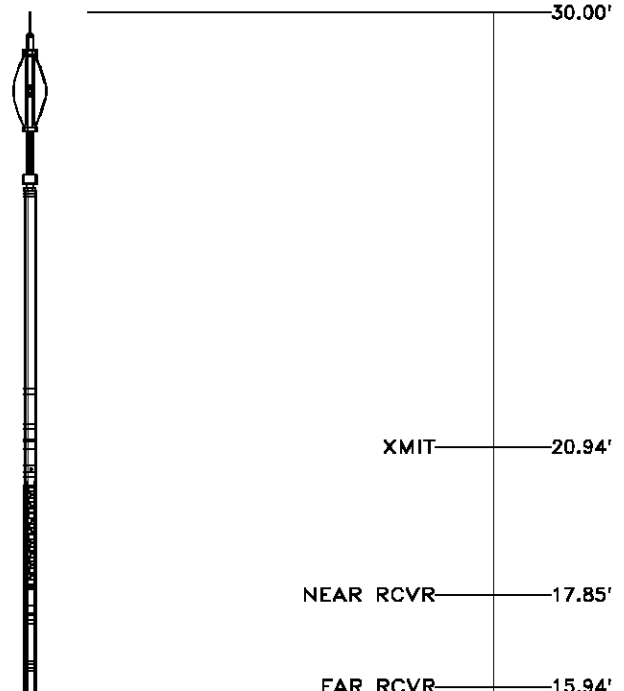
Tool Delay [usec]  Casing OD  Casing Wt  Casing ID   
in lbm/ft in

RECEIVER	Zero Gate Start [usec]	Zero Gate Width [usec]	Zero Amp. [mV]	Full Amp. [mV]	Wellsite Factor	Amp. Ref [mV]
CAL Pulse	<input type="text" value="166"/>	<input type="text" value="25"/>	<input type="text" value="-0.009"/>	<input type="text" value="0.000"/>	<input type="text" value="1.00"/>	<input type="text" value="100.000"/>
3 Ft. Receiver	<input type="text" value="211"/>	<input type="text" value="30"/>	<input type="text" value="-1.210"/>			
5 Ft. Receiver	<input type="text" value="328"/>	<input type="text" value="30"/>	<input type="text" value="-1.423"/>			
Radial #1	<input type="text" value="211"/>	<input type="text" value="30"/>	<input type="text" value="-2.206"/>			
Radial #2	<input type="text" value="211"/>	<input type="text" value="30"/>	<input type="text" value="-1.779"/>			
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Radial #5	<input type="text" value="211"/>	<input type="text" value="30"/>	<input type="text" value="-1.345"/>			
Radial #6	<input type="text" value="211"/>	<input type="text" value="30"/>	<input type="text" value="-1.523"/>			
Radial #7	<input type="text" value="211"/>	<input type="text" value="30"/>	<input type="text" value="-1.091"/>			
Radial #8	<input type="text" value="211"/>	<input type="text" value="30"/>	<input type="text" value="-1.479"/>			

# TOOL DIAGRAM

<b>OTA SHORT CABLE HEAD</b>	
<b>CENTRALIZER</b>	
Series	RALCENT
Mnemonic	CENT
Diameter	3.12"
Weight	20.00 lb

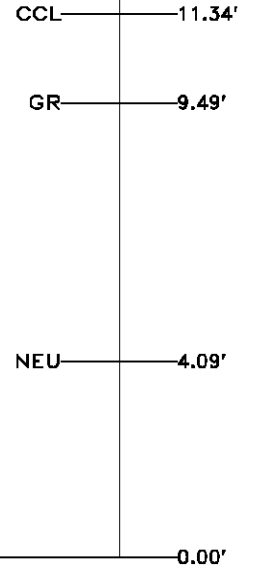
<b>PROBE 2 3/4 DUAL RECEIVER RADII</b>	
Series	1426XA
Mnemonic	PROB
Diameter	2.75"
Length	11.17'
Measure Point	0.75' FAR RCVR
Measure Point	2.67' NEAR RCVR
Measure Point	5.75' XMIT
Temp Rating	350.00 °F
Press Rating	18000.00 PSI



CENTRALIZER	
Series	RALCENT
Mnemonic	CENT
Diameter	3.12"
Weight	20.00 lb

Probe GR/CCL/NEU	
Series	2459XA
Mnemonic	PROB
Diameter	2.75"
Length	9.42'
Measure Point	1.21' NEU
Measure Point	6.60' GR
Measure Point	8.46' CCL

CENTRALIZER	
Series	RALCENT
Mnemonic	CENT
Diameter	3.12"
Weight	20.00 lb



Total Length: 30.00'  
 Total Weight: Not Available  
 Max Diameter: 0' 3.12"



Baker Atlas



<b>Company</b>	WPX ENERGY	<b>File No:</b>	CH074618
<b>Well</b>	BOSELY SG 702-23-HN1	<b>API No:</b>	05045219310000
<b>Field</b>	GRAND VALLEY		
<b>County</b>	GARFIELD	<b>State</b>	COLORADO
<b>Location</b>	SHL: 789' FSL & 216' FWL SEC:23 BHL: 584' FSL & 710' FWL SEC:26	<b>Elevations</b>	26 7S 96W SG 14-23 AZTEC 1000
	SEC 26 TWP 7S RGE 96W		